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REPORT

OF

THE ADVISORY PLANNING BOARD

JUNE 1947

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In recent years a great deal of work has been done in planning both by the Central and Provincial Governments and by non-official bodies. The Advisory Planning Board was appointed in October last year to do a rapid survey of the field and to make recommendations regarding the co-ordination and improvement of planning, and as regards objectives and priorities and the future machinery of planning. These are matters of the highest importance and have now a special urgency. It is vital that public opinion should be seized of them and should be in a position to influence public policy. The Government of India trust that the publication of this volume will evoke interest and constructive criticism from a considerable body of opinion in the country and so contribute to the solution of some of our major problems.

JAWAHARLAL NEHRU.

New Delhi :
26th January, 1947.

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ADVISORY PLANNING BOARD

The appointment of the Advisory Planning Board was announced in a Press Communique dated the 26th October 1946.

Its composition was as follows :—

Chairman : Mr. K. C. Neogy.

Members : Prof. Meghnad Saha.
Nawab Ali Nawaz Jung.
Mr. Gaganvihari L. Mehta.
Dr. Zakir Hussain.
Mr. Shuaib Qureshi, Home Minister, Bhopal.
Prof. K. T. Shah.
Sir Shanti Swarup Bhatnagar, Director, Scientific and Industrial Research.
Dr. Nazir Ahmad, Member, Tariff Board.
Mr. H. K. Kirpalani, Industrial Adviser, Industries and Supplies Department.
Mr. S. A. Venkataraman, Director-General, Industries and Supplies.
Mr. V. Narahari Rao, Finance Secretary.
Sir Pheroze Kharegat, Agriculture Secretary.
Mr. E. P. Moon, Secretary, Development Board.

Its terms of reference were—

(a) To review the planning that has already been done by Government the work of the National Planning Committee, and other plans and proposals for planning,

(b) To make recommendations in the light of this review for the co-ordination and improvement of planning,

(c) To make recommendations as regards objectives and priorities,

(d) To make recommendations regarding the future machinery of planning.

It was stated that the Board was expected to submit its report within two months.

The Board started work on the 4th November, 1946, and after three meetings appointed five Sub-Committees to consider (i) the future machinery of planning, (ii) the financial aspect of planning, (iii) plans for the development of Agriculture, (iv) plans for the development of Industry, (v) River development and Electric Power Projects (Hydro and Thermal).

The Board resumed its sittings on the 6th December and held a series of meetings until the 18th December to consider the reports of the various Sub-Committees and to draw up its own final report. We now have the honour to submit this report.

One of the Members of the Board, Dr. Nazir Ahmad, was not able to attend any of the meetings owing to engagements in Bombay, and another member, Nawab Ali Nawaz Jung, who attended the initial meetings, could not attend the meetings of the Sub-Committees and subsequent meetings of the Board owing to ill health. Prof. Meghnad Saha attended the meetings of the Sub-Committee on the future machinery of planning but did not find it possible to attend any of the meetings of the Board.

PART I

Review of the Planning work that has already been done by Government, the work of the National Planning Committee and other Plans and proposals for planning.

1. We were fortunate in having before us a comprehensive note prepared by Professor K. T. Shah on the work of the National Planning Committee. The reports of such of its Sub-Committees as have completed their work were also placed at our disposal. We would like to express the hope that the full report of the National Planning Committee and the reports of its various Sub-Committees, which contain much valuable material, will be made available to the public at an early date.

2. We have also taken note of various other Plans and proposals for planning, *e.g.*, the Bombay Plan, the People's Plan, the Gandhian Plan, Reconstruction in Post-war India by Sir M. Visveswarayya.

3. As regards the Planning that has already been done by Government there exists a good deal of printed literature which was available to us. We were also supplied with summaries of the Provincial Plans, of the Plans of the various Departments of the Central Government, of the reports of those Industrial Panels which have completed their work* and of the Plans drawn up for certain other industries for which no Panels were appointed. All these summaries together with Professor Shah's note on the work of the National Planning Committee are appended to this report (Appendices I and II).

4. In addition we were furnished with :

(i) a brief review of the plans of some of the major States,

(ii) a note on schemes for industrial training and technical education,

(iii) a note on the plans of the Railways for accelerating the movement of coal from the coalfields,

(iv) memoranda prepared by the Transport Department on (a) Road Development, (b) Road Transport, (c) Port Development, and (d) Inland Waterways Transport in North-East India,

(v) notes prepared by Mr. N. D. Gulhati, Secretary of the Central Board of Irrigation, by Mr. S. C. Majumdar of the Central Waterways, Irrigation and Navigation Commission, and by Messrs. H. M. Mathews and W. L. Voorduin of the Central Technical Power Board, in answer to questionnaires drawn up by the Board,

(vi) a copy of the "Resources Budget" prepared by the Secretary, Development Board which is appended to the Report (Appendix III).

We also had the advantage of personal discussions with Messrs. Mathews and Voorduin of the Central Technical Power Board, with Rai Bahadur A. N. Khosla, Chairman, Central Waterways, Irrigation and Navigation Commission, Dr. D. N. Wadia, Mineral Adviser and with Mr. B. K. Gokhale, Secretary, Works, Mines and Power Department.

5. We desire to acknowledge the assistance which we have received from these and from other officers of Government.

We would be failing in our duty if we were not to make a specific acknowledgment of the valuable help which we received from our colleagues, Professor Shah and Mr. Moon.

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* Reports have not yet been drafted by the Panels dealing with Iron and Steel (Minor) Prime Movers, Automobiles and Tractors, Ship-building and Marine Engineering, Electrical Machinery and Equipment, Industrial Plant and Machinery (Heavy), Machine Tools, Light Engineering Industries and Scientific instruments.

PART II

Recommendations as regards objectives and priorities.

6. We think that it will be convenient to say something about objectives and priorities before proceeding to make suggestions for the co-ordination and improvement of planning.

7. The general objectives of planning have already been outlined in paragraph IV of Part I of the Government of India's Second Report on Reconstruction Planning. Broadly speaking, the objectives are to raise the general standard of living of the people as a whole and to ensure useful employment for all. The attainment of these objectives requires that the resources of the country should be developed to the maximum extent possible and that the wealth produced should be distributed in an equitable manner. It also requires a certain degree of "regionalisation" *i.e.* a dispersal of industrial and other economic activity, so that, so far as physical conditions permit, each distinct region of the country may develop a balanced economy.

Such development would *ipso facto* make the country better prepared for defence, and this may be regarded as a subsidiary objective of planning.

8. It has been suggested that national self-sufficiency should be regarded as the objective of planning. It should certainly be aimed at in certain spheres, *e.g.* in the production of essential foods; but we find some difficulty in accepting it unreservedly as the objective of planning, as no country can be absolutely self-sufficient.

9. There is a natural desire that the general objective of raising the standard of living should be given more definite and concrete shape. The National Planning Committee suggested certain norms, to which the various ingredients making up the standard of living should be raised, so that the cumulative effect would be to raise that standard to three times its present level. The authors of the Bombay Plan suggested that we should aim at doubling the present *per capita* income within a period of 15 years, and they proposed that this should be achieved by framing plans to double the net output of agriculture and to raise that of industry to approximately five times its present level. It must be frankly recognised that we do not at present possess in India either sufficient knowledge and statistical information or sufficiently extensive control over economic activity to be able either to frame or to execute plans whose combined and cumulative effect will be to increase *per capita* income by a pre-determined amount. Nevertheless broad objectives stated in quantitative terms, as by the National Planning Committee and in the Bombay Plan, have a definite value whose direct practical significance will increase as knowledge and statistics improve.

10. Moreover, even as it is, we can and should set ourselves specific targets for individual industries, for certain branches of agriculture, and for the development of shipping and of rail-roadand other forms of communication. Various proposals for such targets have already been made and on these we comment in later sections of this report. We can also broadly estimate the adequacy of the total increases in electric power and irrigation which will result from the power and river development projects at present under consideration. To these also we refer later in this report. In the field of Education and Public Health, the reports of the Sargent and Bhore Committees have provided long-range objectives with reference to which most Provincial Governments and some States have framed or are framing definite, though more limited, targets of their own. We are not in a position to pronounce judgment on these Provincial targets, but we would emphasise the importance of seeing that advance proceeds at a more or less even pace in all parts of the country.

11. As regards priorities, there is not, in our opinion, very much new to be said. It is agreed that there has to be a simultaneous advance in all important fields, and though at different times there may have to be greater concentration on some

rather than others and in all of them the emphasis in the initial stages must be on increased production, there can be no question of exclusive preference. Thus the development of both Agriculture and Industry, the extension of Irrigation, the increase of Electric Power and of the production of Coal, the improvement of Communications, and the raising of the level of Education, Public Health and Social Security must all claim a share of our energies and resources. All of these, it may be noted, require in a greater or less degree an increase in the supply of trained personnel and for the present this may be regarded as Priority No. 1.

12. As regards priorities within these various fields, we offer some remarks under the appropriate heads in Part III. We would like, however, to emphasise that in addition to fixing priorities it is essential to ensure that, so far as may be, these priorities are actually observed. In practice, no doubt, priorities are to a large extent determined for us automatically by factors over which we have no control; but it is possible in certain matters to provide for the due observance of our own chosen priorities *e.g.*, in the allocation of materials which are in short supply. We are not satisfied that there exists at present any adequate machinery for ensuring that this is done. We consider that a Priorities Board ought to be set up immediately to make allocations of certain basic resources in the light of the development plans of the country as a whole. We recommend that if a Planning Commission as proposed by us is appointed (*vide* Part IV) it should discharge the functions of a Priorities Board in addition to its other duties*.

PART III

Recommendations for the co-ordination and improvement of planning.

13. In Part IV of this report we put forward certain proposals for the future machinery of planning. These proposals really constitute our main recommendations for the general co-ordination and improvement of planning. In this Part, therefore, we shall simply review and make suggestions for the improvement of some of the individual branches of planning. We would like, however, first to refer to the "bottlenecks", due to lack of money, lack of capital equipment and raw materials, and lack of trained personnel, which may slow down the execution of development plans.

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Finance

14. During the next five years the provision of funds for development is not likely to present such difficulties as shortages of capital equipment and trained personnel. We believe that, broadly speaking, what is physically possible is likely to be financially possible, provided that the machinery of finance is wisely handled. There are, however, two general principles to be borne in mind :—

(1) The first is that Central and Provincial Governments must regard development as a matter requiring a joint effort in a co-operative spirit and must agree on a common policy of developing their financial resources to the utmost possible extent. The independent pursuit by various Governments of policies involving substantial loss of revenue, before alternative sources of revenue have been developed, can only retard progress.

(2) The second is that in the earlier years of development efforts must be concentrated on building up national wealth. It follows that measures which will increase the income and taxable capacity of the people must be given high priority so as to enable measures of social amelioration, which are also to be initiated at once, to be pursued still more vigorously later on.

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* Some members of the Board consider that the Planning Commission should not itself make the allocations, but should confine itself to making recommendations in regard thereto.

15. At the time when the existing plans, Central and Provincial, were drawn up, a rough and provisional assumption was made that during the first post-war quinquennium the Central Government would be able to make about Rs. 1,000 crores available for development. We consider that planning should continue to proceed on this assumption and that Government should make up their mind to take all the steps that may be necessary to ensure that this sum, if it is actually required for development schemes which are in accord with the general principle stated in paragraph 14(2), is in fact forthcoming. This may mean any or all of the following three things :—

(*i*) Increased taxation.

(*ii*) Increased borrowing.

(*iii*) The creation of additional money.

16. It is not possible for us to lay down in what proportion these different expedients should be adopted. We are however of opinion that the third method must be regarded as a last resort. It will lead to disaster unless associated with the strictest discipline and a variety of controls over the economic life of the country ; and there will have to be a clear understanding that the created money should be used only for really productive purposes which indisputably add to the national wealth.

17. In regard to taxation—a term which is used in its widest sense and would include profits from State commercial undertakings—we are agreed that it must be progressive and employed as one of the principal instruments for securing as equitable a distribution of wealth as possible. This is indeed the chief means whereby in the existing economic conditions planned distribution as distinct from planned production of wealth is possible. We have in mind death duties and limitation of dividends as instances of measures which might be appropriate for securing the end in view.

We feel that some parts of our taxation system are antiquated and insufficiently responsive to increases in wealth. The land revenue system, and particularly the permanent settlement, is a conspicuous example. It is in our opinion most important to abolish the permanent settlement as quickly as possible and in any case before great increases take place in the value of land owing to new irrigation and electrical projects. We hope that the entire taxation structure will shortly be reviewed by a Taxation Enquiry Committee, the appointment of which was announced in the last Budget speech of the Finance Member.

18. It is clear that a very large proportion of the funds required for development purposes will have to be raised by internal borrowing ; but the possibility of external borrowing should also be kept in mind so far as this is compatible with the preservation of national economic freedom.

19. It has been stated on more than one occasion that Government intend to follow a liberal and expansionist financial policy in regard to development. We are definitely of the opinion that there should be no departure from this proclaimed policy ; but the various budgets will have to be scrutinised and adjusted so as to effect economies under headings which do not contribute to development either directly or indirectly.

Capital equipment and raw materials

20. In the immediate future a very large amount of capital equipment will have to be obtained from abroad and we can exercise little or no influence over the rate at which it becomes available. We are necessarily dependent on others. We believe, however, that as a potential purchaser India is relatively well placed, for it seems likely that we shall have no difficulty in providing foreign exchange to pay for this capital equipment, either in the ordinary course of trade or by use of our sterling assets or by external borrowing.

21. As regards raw materials, some indication of the probable shortages of certain basic commodities required for large constructional programmes is given in the "Resources Budget" which has already been submitted to Government. It is clear that during the next few years Coal, Steel, Timber and Cement are all likely to be in short supply. It is mainly on this account that we have recommended the establishment of a Priorities Board (*vide* paragraph 12).

Trained personnel

22. The importance of increasing the supply of trained personnel has long been recognised and all Provinces have included in their plans a large number of training schemes. In most fields it is not possible to judge whether the provision made for the expansion of training facilities has been properly related to estimates of future requirements. At the recent Health Conference it was decided to make a special review of all schemes for training doctors, nurses, etc., with a view to assessing their adequacy from this point of view, and we suggest that this should be done in other fields also, *e.g.*, Agriculture and Education.

As regards Industrial training and training in Engineering, we are clearly of the opinion that the provision so far made is insufficient. We make certain suggestion in this regard in paragraphs 42, 43 and 64 below.

23. We would also urge that in view of the shortage of trained staff there should be a selection of areas for concentrated development. Diffusion of effort is likely, in present circumstances, to result in a waste of money and energy. By concentrating effort we will make the best use of our limited staff; and we will also gain valuable experience by testing out simultaneously on a small scale all the different items of the development programme. Furthermore, rapid and beneficial development in a selected area is the best possible demonstration of its advantages and is likely to create a spontaneous demand for an extension of these advantages which will make the course of future development easier.

In selecting areas for concentrated development special consideration will have to be given to 'backward' tracts which suffer under some special handicap and therefore require special assistance. At the same time it is also desirable to include in the selection a certain number of advanced areas which hold out the promise of quick and successful results.

24. We turn now to more detailed consideration of individual fields of planning.

AGRICULTURE and KINDRED SUBJECTS

25. The question of agricultural development in India has been dealt with comprehensively in a number of publications. We only invite attention here to certain aspects of the subject which need to be emphasised at the present stage.

26. The objective of agricultural planning is to increase agricultural production on a scale sufficient to provide food at a satisfactory standard of nutrition for the whole population and at the same time to ensure an adequate volume of cash crops to serve as the raw materials of industry. It is also necessary to see that the increase in production improves the general standard of living and does not all pass into the hands of intermediaries, whether landlords, moneylenders or traders.

27. It has been estimated that existing production falls short of what is required in order to provide a balanced diet for the whole population by the following margins :—

Cereals	by	10%	(6 million tons.)
Pulses	,,	20%	(1½ million tons.)
Fats & Oils	,,	250%	(5 million tons.)
Fruit	,,	50%	(3 million tons.)
Vegetables	,,	100%	(9 million tons.)
Milk	,,	300%	(70 million tons.)
Meat, Fish & Eggs	,,	300%	(4½ million tons.)

These figures relate only to food and take no account of the increases which may be required in cotton, jute and other cash crops and in forest produce.

28. It may not be possible within the next 5 years to increase production on such a scale as this. The Agriculture Department have, however, suggested that in regard to cereals we might reasonably aim at producing an additional 4 million tons annually by 1951-52. This target includes 1 million tons to be produced in Indian States and is designed to secure that the production of cereals keeps pace at least with the growth of population. From the nutritive point of view this target is obviously inadequate; but we cannot say whether a higher target would be practicable. Even this remains at present a purely theoretical target, as definite plans for achieving it have not been worked out and accepted by the Provinces. The Provincial Governments have included in their five year plans a large number of agricultural schemes, many of which are excellent in themselves; but it can hardly be said that they form an integrated plan for the agricultural development of the country as a whole or that cumulatively they will increase production by some definite amount. It is true that many essential schemes, *e.g.*, those for the expansion of training and research, can by their very nature only influence production indirectly; but even in the case of other schemes insufficient indication has been given of the precise increase in production which may be expected to result from them.

We suggest, therefore, that each Province and important State should now be requested to settle the quantity which it will endeavour to provide towards the realisation of the all-India target of an extra 4 million tons of cereals, frame its plans accordingly, and set itself to achieve within the next five years a specific and quantitatively measurable increase in production.

29. Plans drawn up with this object in view will necessarily include a very large number of small or medium-scale enterprises scattered over the whole country-side and requiring the co-operation of millions of cultivators. We have in mind such enterprises as the sinking of wells, the installation of pumping units, the construction and improvement of tanks and channels, drainage works, levelling, bunding, and other anti-erosion works. Provision will also have to be made for the controlled supply of manures and of improved seed, cattle and implements to myriads of villages. The mere task of collecting data and carrying out detailed surveys in order to ascertain what works and facilities are needed and where will involve very considerable labour, and, when this has been done, there will still remain the task of procuring and distributing the requisite resources and seeing that they are actually put to proper use. The organisation needed for these tasks hardly exists at present. Its creation is a matter of urgency. We have the following suggestions to make regarding the form which such organisation should take :—

(*i*) Multi-purpose co-operative societies should be set up in the villages so far as possible, as it is essential to build up local initiative.

(*ii*) An executive authority should be set up for each district and made responsible for carrying out, in consultation with the villagers and their societies, investigations as to the works and facilities needed in each tract, and for arranging the supply of the facilities and the construction of the works needed. For these purposes this authority must be provided with adequate funds and given a fairly free hand.

(*iii*) Such executive authority should consist of the representatives in the district of the departments concerned, *e.g.*, Revenue, Agriculture, Public Works, etc. brought together under a unified command.

(*iv*) The nerve centres of direction must be district headquarters under the general guidance of the provincial authorities.

30. We may mention here, as it is germane if not to agricultural at any rate rural development, that an authority such as that suggested above might also

include within its functions the ascertainment of the needs and suitability of different villages and localities for the development of various types of cottage industry.

31. All this falls within the field of action of Provincial and State Governments. But the Centre can assist and influence the Provinces, and to some extent the States also, in the following ways, and we think that it should do so :—

(*i*) Grants from the Centre to the Provinces for agricultural development should be made on conditions which will ensure that an adequate proportion of resources are devoted to schemes which really will lead to a definite increase in production. From an all-India point of view increase of agricultural production is of such supreme importance that the Centre would be justified, in our opinion, in exercising its financial influence in this field much more decisively than in many other fields.

(*ii*) The Centre must devise some machinery for ensuring that the demands of agriculture for materials which are in short supply, *e.g.*, iron and steel, coal, cement, are met in full, without delay and at reasonable prices.

(*iii*) The Centre should undertake, on payment, to ' service ' such Provinces and States as may desire this help with tractors, boring rigs and other equipment which is expensive and requires for its operation trained personnel. The Centre should also, wherever possible, undertake at its own expense pilot experiments in soil conservation, joint farm management and other similar matters.

(*iv*) The Centre should expand and intensify its research activities and endeavour to secure a closer co-ordination of provincial research so as to prevent overlapping and ensure, if possible, that no important aspects are left out. There is need for much more experimental work under actual cultivators' conditions.

(*v*) If we are to secure the whole-hearted co-operation of cultivators in increasing agricultural production, they must be given some guarantee regarding the future course of agricultural prices. The Central Government must therefore be prepared to hold these prices at certain levels by the control of imports and exports and, if necessary, by entering the market as a purchaser. If the latter course is adopted, the Central Government and Provincial Governments will have to be ready to hold stocks and to build or acquire storage facilities.

32. There are certain other matters connected with agricultural planning which we think deserve a brief mention.

(*i*) There appears to us to be at present insufficient co-ordination between agricultural and industrial planning. Several industries for which increased targets are being proposed, *e.g.*, sugar and cotton textiles, are dependent directly on agriculture. In fixing targets the repercussions of one on the other must be kept in mind and a careful balance preserved between cash crops and food crops by adjustment of prices and by definite crop planning.

(*ii*) The programme of agricultural development must be carried through, so far as possible, with the willing co-operation of the cultivators ; but it must be recognised that persuasion must sometimes be reinforced by legislative compulsion. Some provinces have already taken powers to compel recalcitrant individuals to accept consolidation, and further legislation of this kind may be required in order to secure effective joint action by a village community. Measures may also have to be adopted to make a landowner or a cultivator utilise his land properly and empowering Government to take it over if he leaves it derelict.

(*iii*) The importance of forests in the economy of a predominantly agricultural country like India cannot be overemphasised. For prevention of floods, erosion and desiccation, for the satisfaction of the needs of the agriculturists for domestic fuel, and for providing essential raw materials for industry, *e.g.*, timber, pulp for paper and newsprint, vegetable tanning material, resin, drugs, etc., it is not only necessary to preserve the existing area under forest but to extend it considerably. We are glad to note that several provinces have accepted the objective recommended by Sir Herbert Howard in his note on Forest Policy in India (1944), *viz.*, that as a minimum about 20 to 25 per cent. of the total area of the country should be under forest including village plantations. We consider that a survey should be made of all our existing forest products, and that the organisation of research into the utilisation of these products should be examined and made more efficient.

(*iv*) The co-ordination of the work of all political units in the matter of agricultural development is of paramount importance, and, looking to the future, we feel that perhaps the best way of securing it will be through the voluntary association of Provinces and States in an organisation based on the model of the Indian Council of Agricultural Research. This should become a Council of Agriculture with separate branches or boards for research, price stabilization, marketing, cooperation, etc.

RIVER DEVELOPMENT and ELECTRIC POWER PROJECTS (Hydro and Thermal)

33. It is not in our opinion practicable or necessary to attempt to arrange all the power and irrigation projects, now in various stages of planning and implementation throughout India, in any special order of priority. All of them appear to be desirable; many of them will in fact be executed more or less simultaneously; and in any case the exact order in which they are taken up will depend largely on factors over which the Government of India cannot exercise much control. We would like to say, however, that of all these projects the Damodar project, in association with the construction of a widespread transmission system throughout Bihar, is the one which is of special significance from the point of view of general economic development.

34. We are informed that the irrigation projects already under construction or in contemplation are expected to bring 20 million acres under irrigation in 10-12 years time, which compares with 9½ million acres brought under irrigation during the period 1919-1944. It must be remembered, however, that a considerable proportion of the latter was virgin soil, whereas the bulk of the 20 million acres now to be brought under irrigation will be land already under cultivation. Nevertheless, if we do actually succeed in extending irrigation to 20 million acres in the next 10-12 years, it will not be an unsatisfactory achievement. Apart from difficulties arising from lack of equipment and raw materials, the following factors are likely to retard progress:—

(*i*) Some of the largest projects are dependent on the construction of big dams and the number of engineers available in India with experience of this type of work is not large. Though, therefore, India is relatively well supplied with irrigation experts, there is likely to be a dearth of the special type of technical knowledge and experience required for these projects.

(*ii*) Several of the major projects involve problems of inter-Provincial and State co-operation which have not yet been satisfactorily solved.

35. The various electrical projects at present under consideration are expected to increase India's total installed generating capacity (about 1,250,000[*] K.Ws.) by about 950,000[†] K.Ws. in 5 years time. Even if this increase is achieved (which

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[*] Thermal 783,000 KW, Hydro 467,000 KW.

Thermal 550,000 K W, Hydro 400,000 KW.

is doubtful), it will, in our opinion, be inadequate. A vastly greater effort is required in the field of electrical engineering if we are to achieve development in any way comparable with what has been proposed in the 'Bombay Plan'; and we consider that more projects should be surveyed and planned as soon as possible so that, later on, designing and construction may not be held up by this preliminary work. It must be admitted, however, that the difficulties mentioned above in connection with Irrigation apply in the case of Electricity Projects also, the first in an even more formidable degree; for India is at present seriously lacking in technical personnel qualified to plan, design and construct large electric power projects; nor can the requisite knowledge and experience be acquired in the space of a few years. Men with 10-20 years practical experience are needed.

36. We believe that the proposals which the Central Government have recently drawn up for establishing a Damodar Valley Authority, with defined objects and powers, provide an effective means of securing inter-provincial co-operation. We understand that these proposals will shortly be discussed with representatives of the Bengal and Bihar Governments, and if, as we hope, they are accepted they will not only enable work on the Damodar Project to be pushed on in right earnest, but will also serve as a valuable precedent which can be followed elsewhere.

37. Our attention has also been drawn to proposals, put forward in slightly differing forms, for establishing for each large river in India a Regional or River Basin Organisation, consisting of representatives of the Centre and of the Provinces and States concerned, and responsible for planning and, if necessary, executing works for the control and utilisation of river supplies. Such organisations, it is urged, would minimise the chances of disputes arising between different administrations by associating them from the very outset in the planning of all development schemes; and in case they did arise, it is suggested that provision should be made for their reference to a Board of Arbitration whose decision would be final. We think that arrangements of this kind, even if not everywhere immediately practicable, are desirable, and that whatever form the new constitution of India may take, effect could be given to them by the voluntary agreement of the various political units concerned.

38. We turn to the problem of the lack of qualified engineers.

In most of the Provinces and States there is a grave deficiency of electrical engineers with experience of designing as distinct from operation; and in some of them there is also a lack of irrigation engineers qualified to undertake construction work.

At the Centre the two specialised planning agencies—the Central Waterways, Irrigation and Navigation Commission (CWINC) and the Central Technical Power Board (CTPB)—which were set up to survey and plan river development and power system projects and to advise Provincial and State Governments in these matters, are both so understaffed that they can barely cope with all their work, and they are at present quite inadequately equipped to undertake detailed designing and actual construction. Yet with the Damodar and Mahanadi projects nearing the stage when designing and construction should begin, this work is also likely to be thrust upon them; for the Provincial Governments concerned (Bengal, Bihar and Orissa) have quite insufficient staff to undertake it. These organisations will therefore have to be very greatly expanded so as to embrace designing and construction branches.

39. The question has been raised whether these two organisations, CWINC and CTPB, should not be amalgamated. It is obvious that these multi-purpose projects require the collaboration of both irrigation and electrical engineers, and it seems to us preferable from every point of view that for this purpose they should all be merged in a single organisation rather than grouped in two separate ones. In any case there must be close co-operation between them.

40. It may well turn out that for the rapid execution of all the various projects Government agency will not suffice, and that it will be necessary in some cases to

engage private firms to help in the work. Parties thus engaged should, so far as possible, be Indian and the work entrusted to them carried out by Indian personnel and under Indian control. In those cases, however, where the peculiar character of the work inevitably requires the aid of a non-Indian agency, such agency may be entrusted with a project or part thereof on condition that it trains up, during the period of the contract, Indian talent in that particular branch to the highest level.

41. It is however quite clear that an attempt must be made to build up a regular governmental organisation in this country capable of handling these large inter-provincial projects. This is now a matter of urgency. We venture to offer some suggestions regarding it :—

(*i*) Plans have already been drawn up by American engineers for designing and construction organisations commensurate with India's estimated needs. We think, however, that instead of establishing organisations in vacuo, unrelated to any particular scheme, it will be better to build up one for some specific project and then go on developing or duplicating it as the work to be undertaken increases.

(*ii*) In the initial stages any such organisation will inevitably have to contain a foreign element, employed on a contract basis. The present procedure for recruitment of foreign personnel is slow without being sure. We doubt whether any of the present Government agencies can do the selection properly. Certain suggestions which we make in paragraph 64(*vi*) are relevant in this connection ; but to obtain satisfactory results, it is in our opinion, essential that officers of CWINC and CTPB, with or under whom the foreign elements are to work, should themselves have a hand in the selection and should be given opportunities to interview the candidates rather than that reliance should be placed on paper qualifications.

(*iii*) There is reason to suppose that there is a good deal of submerged talent in the Provinces of which the best use is not being made. Provincial Governments are, no doubt, short of engineers and naturally do not like to give up their best officers. Many first class men are therefore detained in the Provinces on comparatively unimportant jobs, while their abilities could be employed to much greater advantage at the Centre. In order therefore to secure the best men, service in a Central designing and construction organisation must be made attractive and the provinces persuaded to co-operate by releasing talent at present employed on less important work.

42. We have emphasised that the present shortage of Indian engineers renders the employment of some foreigners inevitable in the immediate future. It is all the more necessary to see that really adequate arrangements are now made for training young Indian engineers so that within a reasonable space of time the foreign element may be eliminated. Training should in our opinion be given in India itself so far as possible. A few batches of selected engineers with some years of practical experience will doubtless have to be sent abroad for specialised study of specific features of design and construction ; but sending engineers abroad for routine engineering training costs a good deal and the return is often small. So far as practical training is concerned, the projects to be undertaken in India during the next few years will provide plenty of opportunities. We doubt, however, whether the provision so far made in India for theoretical training can be regarded as satisfactory. We understand that schemes have been sanctioned for specialised post graduate courses in power engineering at Bangalore and Calcutta ; and several Provincial Governments have schemes for expanding their engineering Colleges. But these schemes appear to be quite unco-ordinated, and it is far from clear that they will yield an annual output of engineers sufficient for our needs; indeed, it is not even possible at present to discover what the total effect of these schemes is

likely to be. We suggest therefore (*i*) that a comprehensive review should at once be made of all plans for expanding engineering education in order to determine whether they are adequate in scale and whether the whole field is covered, (*ii*) that these plans should be properly co-ordinated so that if facilities for a certain type of study cannot be given at one place they are made available at another, (*iii*) that courses and curricula should be revised and broadened so as to bring them into line with modern requirements.

43. It will perhaps be said that the All-India Council for Technical Educations, which has recently been formed to survey the whole field of technical education, will *inter alia* review facilities for training in engineering, and that therefore no further action is required. We are doubtful however whether such a large body, charged with making such an extensive review, will be able to dispose of the engineering section of the work as satisfactorily as is desirable. Furthermore engineers appear to be inadequately represented on it. We consider therefore that a small Sub-Committee of the Council, on which engineers should be fully represented, requires to be set up at once specially to review plans for education and training in engineering.

INDUSTRIES

Survey of Industrial Development

44. For surveying the possibilities of industrial development in the country the panels set up by the late Planning and Development Department appear to us to have been quite a suitable agency. The number of panels appointed cover pretty well the entire field and a great deal of useful information has been collected and valuable suggestions made for the development of various industries.

45. From the nature of the work to be done by the panels their composition was necessarily over-weighted with Industrial and Business interests. We therefore think it very necessary that in dealing with the recommendations of the panels special care should be taken to see that the interests of consumers and the country at large are properly safeguarded.

46. Valuable as the work of the panels has been there is a danger that too much time may be spent in meticulous planning. Planning by its very nature is dynamic, and a good deal will have to be learnt by actual experience. We think, therefore that, even at the risk of a certain lack of meticulousness, it is desirable to have a plan and initiate action on it, rather than spend more time on mere planning. Accordingly we recommend that Government should fix a date by which panels that have not completed their work should do so. If in any case the work is not sufficiently advanced, we suggest that the panels concerned should be dissolved and some other agency set up for completing the work expeditiously.

47. We would also suggest that once panels have reported Government should see that their recommendations are brought together and correlated so as to form an integrated plan of industrial development and that decisions on them are taken and acted upon without undue delay.

48. In this connection we would like to draw attention to two matters regarding which a number of recommendations will be found in the various panel reports. In the first place our knowledge of our raw material resources is by no means complete. We understand that, as recommended by the Panels on paper and on rayon, a surveys of cellulose-bearing materials is now being undertaken. Other such surveys recommended by various panels, *e.g.*, surveys of non-ferrous metals and of raw materials for the glass and ceramic industries should also be made.

Secondly, except in a few cases, there has been no attempt to introduce and enforce acceptable standards of quality either in the case of raw materials or of finished industrial products. It is hardly necessary to emphasise the importance of this, and we hope that the Indian Standards Institute which is to be set up shortly will soon evolve a complete body of Indian Standard Specifications throughout the Industrial field.

Targets

49. As regards the targets proposed for the various industries, we feel that we are not in a position to sit in judgement upon the recommendations which the panels have made after careful enquiries. On general grounds we feel that moderate targets which can be executed within definite time-limits are a surer foundation for industrial development than more grandiose schemes which, if successful, might turn out to be in excess of the absorptive capacity of the country and if unsuccessfull would give a serious set back to the movement for advance. Judged by this criterion the targets recommended by the panels appear to us on the whole to be acceptable. We would add, however, that all targets must be viewed in the light of available material resources. Thus it would be useless to fix a target for cement production which would be quite unattainable owing to the lack of some essential raw material, *e.g.*, coal.

We would also emphasise that targets must be fixed primarily with a view to catering for the home market. Exports are at present a subsidiary consideration.

Priorities

50. It is not possible in our opinion to fix definite and absolute priorities as between different industries. We have to recognise that the capacity for manufacturing different kinds of machinery in the exporting countries is not interchangeable and therefore it does not follow that machinery for an industry to which we wish to give priority will be available in preference to machinery for other industries. To a great extent machinery has to be accepted and set up as it becomes available and no absolute priority can be fixed by us. Moreover priority is in essence a question of emphasis according to the exigencies of a given moment, and not a matter of exclusive concentration on this or that industry or industries.

There may be, however, some possibility of competition between different industries in so far as raw materials and materials for setting up factory buildings etc. are limited. We do not think that in practice such competition will arise to any great extent; but if it should do so, we suggest that first preference should be given to Defence Industries and to industries relating to the prime necessities such as food, clothing and housing, to coal, and to transport. Irrigation, as the hand-maid of agriculture, and hydro-electric power, iron and steel, and chemicals, which subserve all industries as well as agriculture, would also have to be given equal preference. The manufacture of machinery of all descriptions should find the next place, industries producing consumer goods, other than essential food and clothing, coming last on the list.

Central Planning and Control

51. We are of the opinion that the proper development of large scale industries can only take place if all political units, whether Provinces or States, agree to work in accordance with a common plan. Both from the point of view of conserve ing capital resources and avoiding wasteful competition and from the point of view of securing regional development which would advance the standard of living in the country as a whole and avoid undue concentration of Industries in particular areas, Central Planning seems to us to be essential.

The alternative suggested is Provincial planning; but the practical difficulties of securing a measure of agreement on plans drawn up independently by a large number of Provinces and States and of integrating them so as to form a single coherent plan appear to us to be far greater than those of adjusting a common plan to the requirements of the various units.

We should like to make it clear that should political developments hereafter rule out a Centre for the whole country in the field of Industry, the ideal of common Planning should nevertheless be pursued and arrangements made for achieving it by negotiation and agreement amongst the various Units.

We would add, however, that proper planning for the Industrial Development of the country can only be on the basis that every Political Unit, whether a Province or State, has full opportunity for development of its resources, employment of its people and investment of its capital. The emphasis at present should be on the positive rather the restrictive aspects of planning.

52. As regards the industries which should be made the subject of central planning we suggest the following tentative list :—

(1) Arms and Munitions of War
(2) Coal
(3) Iron and Steel—Primary Production
(4) Prime Movers
(5) Automobiles and Tractors
(6) Aircraft
(7) Ship-building and Marine Engineering
(8) Electrical Machinery
(9) Other Heavy Machinery
(10) Machine Tools
(11) Heavy Chemicals, Fertilizers, Pharmaceuticals and Drugs
(12) Electro-Chemical Industries
(13) Non-Ferrous Metal Industries
(14) Rubber Manufactures
(15) Manufacture of Telephone, Telegraph and Wireless Apparatus
(16) Power and Industrial Alcohol
(17) Motor and Aviation Fuel, Kerosene and Crude Oils
(18) Cotton and Woollen Textiles
(19) Cement
(20) Sugar
(21) Vanaspati

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53. Central Planning in our opinion implies some degree of central control. We may arrive at a common plan by voluntary agreement between Provinces and States, but there must then be some means of enforcing it The obvious means is through legislation In the case of the Provinces, central legislation is possible if the development of those industries which are to be the subject of central planning is brought by law under the control of the Central Government. This can be done under the existing constitution and we strongly recommend that it should be done.

It is impossible, as things stand at present, for the Central Government to legislate for the Indian States. It will be necessary therefore to get them to enact analogous legislation by agreement.

The main purpose of the proposed legislation would be to ensure that in the field selected for central control no new factory should be started or an existing one continued or expanded without a license.

54. Whilst we are fully alive to the paramount necessity of safeguarding the interests of labour in the new scheme of industrial development, we do not think that the license should impose conditions as to wages, hours of work or the housing etc. of labour. In our opinion such conditions should be of general application and should not be forced upon particular industries or factories through the medium of licensing. The latter course might have the effect of regarding and in some cases almost crippling new industries brought under central control and also creating complications *vis-a-vis* provincially controlled industries and industries in State

in respect of which similar restrictions might not apply. In order to safeguard the interests of industrial labour we recommend that comprehensive legislation should be introduced without delay in respect of all industries whether centrally or provincially controlled.

Pending however the enactment of such legislation and in order that undesirable conditions may not be created in new industries or factories in its absence, the license may provide for :

(*a*) scrutiny of plans of new factories with a view to seeing that due provision is made for minimum standards of health and safety ;

(*b*) housing of labour where deemed absolutely necessary or the provision of transport where ordinary means of transport do not exist ; and

(*c*) the disposal of industrial wastes, specially in rural areas where adequate municipal control does not exist.

55. While the overall planning of industries would be done by the Centre, we consider that the implementation of the plans should be left to the Provinces and States, the Centre retaining only supervisory control. The actual granting of licenses to industrial undertakings would therefore have to be left to the Provinces and States.

Extent of State Ownership and management of Industries

56. The Railways, Ordnance factories and a number of public utilities are already very largely State-owned and State-operated. Government have also decided that the nascent Aircraft Industry is to be State-owned and that the bulk generation of Electric Power should, so far as possible, be a State concern. Apart from this, official references to State ownership and management of Industries have been somewhat guarded. In the Statement of Industrial Policy, which was issued in April 1945, a list was given of " basic industries of national importance " which might be nationalised " provided adequate private capital is not forthcoming and it is regarded as essential, in the national interests, to promote such industries ". This list included such important industries as Iron and Steel, Chemicals and Dyes, Automobiles and Tractors, and the Electro-chemical and Non-Ferrous metal industries ; but the proviso left the question of nationalisation open. The various industrial Panels which, under their terms of reference, were required to report whether on either of the two grounds mentioned above they recommended nationalisation, have so far almost all favoured private ownership. Only in the case of a few branches of Industry where, owing to lack of any immediate prospect of profit, private capital may be shy in coming forward, have they recommended State enterprise.

Broadly speaking, therefore, thinking and planning in regard to industrial development has so far proceeded on the assumption that practically the whole field will be left to private enterprise. The ultimate decision rests, no doubt, largely with the Provincial Governments and it is true that the Assam Government are drawing up plans for State enterprise in a number of industries ; but Assam, at present, is the exception rather than the rule.

We are not quite certain whether it is within our province to make recommendations on this subject. but we feel that it is a matter which so intimately affects industrial planning that we can hardly pass it over without a word. We would give it therefore as our opinion that if at the present juncture the State attempted to take into its own hands the ownership and management of a large range of industries the industrial development of the country might not be very rapid. Nevertheless it seems to us that it should be our policy to bring under State ownership and management some at least of the basic industries of the country and that the execution of such a policy should form part of our plans. We recommend, therefore, that apart from Defence Industries and any industry or branch of any industry which it might be found desirable to start as a State enterprise through the reluctance of private capital to undertake it, the nationalisation of the following should be considered :—

Coal, mineral oils, iron and steel, motor, air and river transport.

The enlargement of State enterprise will necessitate considerable alteration in the present methods of governmental administration. Some of us believe that the best way of conducting State enterprise will be through Public Corporations.

57. As regards the various forms of State-aid and State control which may be extended to those industries which are left to private enterprise the Industrial Panels have made a number of recommendations to which we have nothing to add. Each of these recommendations will have to be considered on its individual merits.

Foreign capital and management

58. Under their terms of reference the Panels were asked to report whether the capital required for industrial development would be available by public investment and the " manner and degree of co-operation with foreign firms considered necessary and desirable both as regards Capital and Management "

The finding of the Panels on the first point is that the necessary capital will be forthcoming from this country and that foreign capital will not be required for direct investment in industries. We endorse this view and hold that given proper inducements and safeguards all the capital required for industrial development will be provided by private investors, and that if it is not, or if such a course is considered desirable, it should be found by Government.

59. It will be necessary to import foreign technicians to assist most industries in varying degrees, but such technicians will doubtless be obtainable on the usual terms of employment. It would be highly desirable that the training of local personnel should be made one of the terms of such employment.

In the case of highly specialised industries, it may be necessary, where such a course is found unavoidable in the national interest, to acquiescein an Agreement of Management which would leave the control of the management in foreign hands for a limited period. In such a case, if participation in capital is made a necessary condition of association, there would be no objection to it provided that effective control is retained in Indian hands. It should, however, be a condition of the Agreement that Indian personnel would be trained for all grades of the industry so that on the termination of the agreement Indian personnel could take over the entire management including the Technical Direction of the Company. Government should also exercise a general supervision over such Agreements.

60. Beyond this we are of the opinion that the intrusion of foreign firms in the field of Indian industry should not be allowed. The reasons for keeping the basic industries of the country free from foreign control and entirely in the hands of the nationals of the country are obvious. But even in the case of other industries, *e.g.*, consumer goods industries, we think there are good reasons for a similar restriction. If foreign companies with their vast resources, technical and financial, are allowed to establish themselves in industry in the fields at present not covered by Indian enterprise, there is little chance, in our opinion, of that enterprise being brought into existence at a future date. Even if an attempt is made, it would have to contend against formidable difficulties. It seems to us preferable that the goods which the country cannot produce at present but would be in a position to produce later on, should continue to be imported from other countries rather than that their local manufacture should be started or expanded by foreign firms. In the course of time it will be possible to restrict or discontinue foreign imports ; but foreign vested interests once created would be difficult to dislodge.

Industrial Training

61. A fundamental pre-requisite of rapid industrialisation is technical education, and perhaps the most serious problem facing industry in this country is lack of competent technical personnel. There has recently been some realisation of this vital gap in our industrial equipment, and attempts have been made in schemes sponsored by the Labour and Education Departments to fill the breach ; but these schemes collectively fall far short of what is needed by Industry.

62. The running of industries requires skilled personnel falling roughly into three classes, *viz* : (i) Managers, (*ii*) Supervisors, (*iii*) Skilled workers.

The second class is in some ways the most important at present.

To meet the first need the Education Department have plans for the establishment of two higher technical institutions on the model of the Massachusetts Institute of Technology, U. S. A. They also have a scheme, which is already in operation, for sending students abroad for post-graduate and research work in foreign universities. Similarly the Labour Department have a scheme for sending men abroad for further practical training. They are selected from the nominees of industrial employers and must have at least a degree or diploma and three years practical industrial experience, *i.e.*, they must possess qualifications which will enable them to rise to managerial appointments. Progress with this scheme has, however, been slow, mainly owing to difficulty in getting foreign firms to take trainees.

To meet the need for skilled workmen in the engineering trades a special Committee, appointed in 1944, drew up an elaborate scheme of training, but though this Committee reported in August 1945 its recommendations are still under consideration by the Government of India.

As regards supervisory personnel, the Bevin Training Scheme played an important part in supplying the needs of war time industry ; but it is no longer in operation and nothing yet has been devised to take its place. There is therefore no scheme at present for providing well-trained personnel to fill supervisory posts.

63. A recent American survey made at the request of the Government of India has produced a searching analysis of the present needs of India in this respect. The Report by Messrs. Ford, Bacon and Davis lays stress on the following points :—

(*i*) There is an almost complete lack of engineering and management experience or "know-how" in other words "the intimate knowledge of the most practical means under any given condition to produce in quantity at lowest cost, and involves knowledge of methods of processing, tooling and designing of jigs and fixtures ; the layout of equipment and the provision of labour-saving devices ; the designing and setting up of proper controls of production and inventories ; the organisation of supervisory personnel ; and laying down lines of authority and responsibility ". This "know-how" is perhaps the most important single element requisite for rapid and successful industrialisation. Some of our Ordnance Factories and a few of the larger units of Industry in this country are fortunate in this respect, but their number is insignificant.

(*ii*) Labour 'Tempo' is generally much lower than in foreign industrial nations. This is almost entirely due to the lack of a sufficient number of skilled foremen.

(*iii*) The lack of adequate mechanical, electrical and hydraulic equipment and the like in the technical colleges and institutions in India is a real handicap to the effective education and training of technical students.

64. To remedy the admitted and lamentable lack of trained technicians we make the following suggestions :—

(*i*) The equipment of Indian technical Institutions and Colleges should be immediately overhauled and stepped up to meet modern requirements.

(*ii*) Definite decisions should be reached immediately on the scheme drawn up for the training of skilled craftsmen in the engineering trades, and the preparation of similar schemes for other branches of industry should be taken up.

(*iii*) Industrialists should be consulted without delay on the need and possibility of devising a scheme to replace the Bevin Scheme for training personnel to fill supervisory posts.

(*iv*) While the Education Department's scheme for sending young men abroad for university training should be continued there must be no less emphasis at the moment on the Labour Department scheme for sending men abroad for further practical training. What is required is intensive training in workshop management and supervision, in methods of production and in the laying out and running of a modern factory. For this purpose selection should be made, so far as possible, from men already working in industry, and they should be sent abroad for training with a view to their undertaking some definite job on their return. The Industries Department should be associated with the Labour and Education Departments in their selection.

(*v*) A survey of available engineering and technical personnel, and our immediate requirements in this respect, should be made without delay, and the preparation of a National Register of technicians started.

(*vi*) As we will be requiring the assistance of foreign technicians for some time to come, we should ensure that we get the best value for our money. For this purpose a competent scientific and engineering wing should be attached to our representatives in the U.K. and the U.S.A. in order to help in selection and to arrange proper courses of study or training for the young men we send abroad.

(*vii*) When large contracts are placed by Government and quasi-Government bodies for stores, the contractor should, as a condition of the contract, be required to give suitable training to selected Indians in the manufacture of such stores. This should apply to factories both here and abroad.

65. In short, we should initiate at once the full mobilisation of our total resources in technical personnel and talent, not merely for purely industrial needs, but also for those vital factors in our whole industrial and agricultural development, namely large irrigation and hydro-electric projects.

Cottage industries

66. Any plan of industrialisation for this country should provide for the development of Cottage Industries, so as to ensure a secure place for the humble craftsmen in the villages. One of the matters, therefore, on which the various Industrial Panels have been required to report is whether, and to what extent, the industries with which they are concerned should be developed, as in Japan, on the Cottage Industry basis. Furthermore, all Provincial Governments have included in their Plans schemes for the development of Cottage Industries, providing, for example, for the training of craftsmen, the supply of machinery, implements and raw materials, and the organisation of marketing.

As in the case of Agricultural development we are confronted with the problem of discovering what assistance and facilities are wanted by a large number of small-scale enterprises scattered over the whole country-side and then arranging to supply them. This is a difficult task of organisation for which adequate staff is not available. We have already referred to the matter briefly in paragraph 30.

COMMUNICATIONS

Railways

67. The estimated cost of the plans of the Railways for the five year period is about Rs. 230 crores. New lines, some of which are likely to prove unremunerative, account for Rs. 50 crores. Over half the expenditure is to be devoted to office buildings, workshops, staff quarters and amenities, and to the improvement of rolling stock, stations, the signalling system, track and bridges, fencing etc.

68. These plans of the Railways hold a very crucial place in the whole development programme; for increased availability of coal, which is still the main source of power, depends primarily on the railway projects for opening up new coalfields and for accelerating movement of coal from the collieries. We understand these projects to be as follows :—

(*i*) About 700 miles of new lines, serving the coalfields, are to be constructed on the East Indian and B.N. Railways. The survey reports will not, however, be ready before the latter part of the next year and in some cases the surveys have not yet begun.

(*ii*) Additional siding and transportation facilities have been or are being provided for the movement of coal from some of the important coalfields in Bihar, Bengal and the C.P.

We recommend that these railway projects for increasing the availability of coal should be given the highest possible priority and that Government should keep a close watch on their progress.

69. Proposals, which are under investigation, for the electrification of some sections of the B.A., B.N. and E.I. Railways also have a bearing on the movement of coal from the coalfields. We understand that from this point of view the project for electrifying the main line from Burdwan to Mughalserai is the most important.

70. We would remark that these and other plans for the electrification of the railways have a further significance in relation to coal; for they would contribute to the conservation of metallurgical coal which is at present being used by the railways and which is needed for the steel industry. This aspect of the matter must be kept prominently in view.

71. Apart from what is said above, the Railways' plans are important because they dwarf all other constructional programmes in the call which they make on the physical resources of the country. Their requirements of steel, we understand, amount to no less than 50 per cent of the current production; their demands for timber are enormous; and for cement and other commodities very considerable. We consider, that in view of the shortage of these materials, the plans of the railways, other than those affecting the supply of coal, must be very carefully screened and may have to be slowed down to some extent. Railway development has to be planned in relation to the system of Transport as a whole and undue emphasis must not be placed on any one branch.

Roads

72. The plans for road development follow the recommendations made by the Conference of Chief Engineers of Provinces and States held in Nagpur in December 1943. The targets fixed by that body are given below :—

National Highways	22,000 miles.
National Trails	3,000 „
Provincial Highways	65,000 „
District Roads—Major	60,000 „
District Roads—Others	100,000 „
village Roads	150,000 „

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These aims have been considerably curtailed, but it appears to us that an adequate proportion of total resources is proposed to be devoted to roads; and that the plans are soundly conceived.

73. Expenditure proposed under these plans on National Highways, inclusive of working costs, during the next five years is about Rs. 36 crores. This is to be met entirely by the Central Government, but the actual execution of the work will ordinarily be carried out by the Provincial P.W.Ds.

Similarly, the outlay proposed on Provincial, District and Village Roads, for which Provincial Governments will be responsible, is about Rs. 147 crores. Provinces are alive not only to the need for achieving some sort of balance between the various classes of roads, but also to the importance of developing village roads to assist rural development.

74. There is an expert road organisation in the Transport Department of the Central Government which exercises a general supervision over the execution of the work on National Highways, and also examines and co-ordinates Provincial road plans so as to integrate them with the overall Road Plan for the Country.

There is also a proposal to establish a Central Road Research Organisation comprising a Central Research Institute with a laboratory and experimental station at Delhi and sub-stations elsewhere.

75. We have no particular suggestions to make for improvement of these plans except to emphasise the urgency of providing suitable mechanical equipment for implementing the programme.

Ports.

76. Plans for port development can hardly yet be said to have taken shape. The 'Ports (Technical) Committee' has recently submitted a report, which is still under consideration.

We understand also that the Port Trust Authorities of the major ports are working out plans, but full details are not at present available.

We would suggest that the country's prosperity will be favourably effected by an increase in the number of ports. Port development must however keep pace with and be related to the growth of maritime trade, the development of National shipping in coastal and overseas trades, and the co-ordination of roads, railways and waterways. As a rule the existing ports must be developed before new projects are embarked upon, unless economic, geographical or strategic reasons dictate otherwise.

MINES and MINERAL DEVELOPMENT

77. We understand that it is proposed to spend about Rs. 2 crores on the reorganisation and expansion of the Geological Survey, the Indian School of Mines, Dhanbad, and the establishment of a Directorate-General of Mineral Development. The latter proposal is bound up with the question of taking certain minerals under the control of the Central Government which is now under consideration.

We consider that the formulation of an all-India mineral policy, acceptable to the Provinces and the States is urgently necessary. On this subject the National Planning Committee passed the following resolution:—

> "The mineral wealth of the country belongs to the community collectively. The exploitation of minerals and development of mining and mineral industries should be reserved exclusively to be carried on as public enterprise."

We are in general agreement with this resolution and though the ideal of public ownership and management of all mining and mineral industries does not appear to us to be immediately realisable, we have recommended (*vide* paragraph 56 that State-ownership and management of coal, iron, and mineral oils should be considered. Apart from this we think that the following principles can and should be accepted at once as the basis of policy.

(i) Minerals should be owned and exploited by nationals of the country and not by foreigners.

(ii) All Mineral development should be regulated by Government, whether Central, Provincial or State.

(iii) In respect of certain minerals (a tentative list of which is given below)[*] there should be central co-ordination and regulation in order to ensure their wise utilisation in the general national interest.

78. We have already in the course of this report referred several times to the importance of increasing the production of coal. The subject has been fully dealt with in the report of the Coalfields Committee and we would urge that action be taken on that report immediately.

EDUCATION.

79. Educational Development Plans are in the main based on the Sargent Report with variations to suit provincial conditions. In all of them training schemes and schemes for the expansion of training institutions have a large place. Lack of trained teachers, no less than finance, prevents the immediate introduction of compulsory free primary education for all. Provinces therefore necessarily plan to proceed gradually. As mentioned earlier, it is important to see that progress is everywhere maintained at a more or less even pace. Apart from this, we have no special recommendations to make for the co-ordination and improvement of educational plans save in respect of technical education to which we have referred elsewhere.

MEDICAL and PUBLIC HEALTH

80. Provincial schemes under this head were prepared before the publication of the Bhore Committee's Report and are now being revised in the light of the Committee's recommendations. At this stage we have no particular recommendations to make

There is one point however which we should like to mention under this head. In the post-war period there is bound to be considerable extension of urban areas especially in connection with industrial development. Most Provincial Governments are at present without adequate Town Planning staff; yet there are no plans for remedying this deficiency. There has been no estimate of the sort of staff that might be required, whether for a single city or for a whole province, nor any proposals put forward for recruiting or training such staff. This appears to us to be a matter which requires immediate consideration.

PART IV

Recommendations regarding the future machinery of planning

81. The future machinery of planning must be devised with reference to the functions which are to be performed. We recognise that these functions so far as the Central Government is concerned, are at present limited, seeing that constitutionally a very considerable portion of the whole field of development falls outside its sphere. Even, however, without direct constitutional powers the Central Government can by persuasion and advice, by the part which it plays in organising research, and by its control of banking and credit, tariffs, foreign trade, railways and railway freights, profoundly influence the whole economic development of the country. Furthermore, under the existing constitution the Central Government can by legislation bring certain industries and minerals under its direct control,

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[*] Coal, Petroleum, mica, Beryl, Chromite, Ilmenite, Sillimanite, Manganese-ore Monazite, Rare earth minerals, all Uranium and Thorium-bearing minerals, and Piezo quartz

and at the moment it does in fact exercise such control by virtue of special wartime powers which are still in force. We assume that the Central Government will arrange for the continuance of such control.

82. In the light of the above, the following would appear to be the legitimate functions of any planning machinery established under the Central Government.

(*i*) Scrutiny and co-ordination of Provincial Plans and Plans of Central Departments,

(*ii*) Making recommendations to Government as regards the allocation of Central funds for development purposes,

(*iii*) Formulating plans for the development of major industries and important minerals,

(*iv*) Making recommendations to Government regarding various forms of State aid and State control to be extended to industries,

(*v*) Making recommendations to Government regarding trade both foreign and internal,

(*vi*) Making recommendations regarding monetary and financial policy, including currency and credit at home and abroad, as affecting the planned development of the country,

(*vii*) Watching and stimulating progress in regard to the execution of the plans referred to in (i) and (iii) above, compiling and publishing statistics relating to them, suggesting adjustments and modification in them and initiating new plans,

(*viii*) *Allocating material resources which are in short supply so as to ensure that due regard is paid to priorities,

(*ix*) Examining the implications of scientific research and discovery on social welfare.

83. There already exists special machinery for the discharge of the first five functions. This consists of the Co-ordination Committee of the Cabinet, aided in the case of (i) and (ii) by the Development Board, in the case of (*iii*) and (*iv*) by the Planning Branch of the Industries and Supplies Department, and in the case of (v) so far as foreign trade is concerned, by the Commerce Department and Tariff Board

It has hitherto been assumed that this same machinery would in due course be used for watching progress and seeing that necessary action is initiated or stimulated; anyhow no other machinery exists or has been devised.

As regards (*viii*) and (*ix*) no proper machinery exists at present.

84. We do not consider the existing machinery, described above, entirely satisfactory. Apart from the Co-ordination Committee of the Cabinet, the members of which are necessarily preoccupied with other affairs, there exists no agency for taking a comprehensive view of planning as a whole and for tracing the interactions and repercussions of all the various plans, projected or in operation. The Development Board deals only with a section of the whole field, and its members, being Secretaries to Government, are too much engrossed with their own departmental duties to attend more than spasmodically to general problems of planning. It is, moreover, altogether too large a body, too lacking in cohesion and too intermittent in its meetings to serve as an instrument for keeping a continuous watch on planning activities and transmitting to subordinate authorities a constant flow of energetic pressure.

85. We suggest that for the effective discharge of the functions enumerated in paragraph 82 a single, compact, authoritative organisation is required which should be responsible directly to the Cabinet (or a Committee of the Cabinet)

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* **See note on page 24.**

as a whole rather than to any one Member, and which should devote its attention continuously to the whole field of development, in so far as the Central Government is concerned with it. This organisation, we think, would best take the form of a small wholetime Planning Commission composed of not more than 5 and not less than 3 members and furnished with all the necessary secretariat facilities and with appropriate technical assistance.

86. As regards the composition of the Planning Commission, it has been suggested that the Chairman should be a senior Minister, holding no portfolio, like the Lord President of the Council in England. Some of us think that such an arrangement has much to commend it, but are doubtful whether in view of existing political conditions in India it would be practicable; while others think that it is better in any case to dissociate the Commission entirely from the vicissitudes of politics.

We recommend therefore that no Minister should be a member of the Planning Commission and that it should be, as far as possible, a non-political body whose members will not fluctuate with changes in political fortunes.

We suggest that if the Commission consists of five members, as some of us recommend, it should be composed as follows :—

(*i*) A person of standing with general experience of public affairs, who would be the Chairman.

(*ii*) Two non-officials with knowledge and experience of Industry, Agriculture and/or Labour.

(*iii*) A Government official with knowledge and experience of finance and general administration.

(*iv*) A person eminent in the field of Science and Technology.*

If, however, a Commission of only three is appointed, which some of us think would be more compact and effective, its composition might be :—

(*i*) A person of standing with general experience of public affairs who would be the Chairman.

(*ii*) A non-official with knowledge and experience of Industry.

(*iii*) A Government official preferably with some experience of finance.

In regard to many matters, it would be necessary for this Planning Commission to call in other persons for advice and consultation and to set up committees of experts to assist it. In regard to certain of these matters, *e.g.*, those connected with the development of Agriculture, Industry, Transport etc., it might even be made obligatory on the Commission to consult representatives of the interests concerned. In regard to the planning of Industries which relate to Defence requirements, it would be essential for the Commission to work in close contact with the Defence Committee of India.

87. As is clear from the nature of its functions, in regard to many matters the Commission would only make recommendations and decision would rest with Government. But we think that as regards the allocation of material resources which are in short supply it is desirable that the Commission should act as a Priorities Board and be empowered to give final decisions, subject only to an appeal to Government.† Furthermore it would have to be authorised, either generally or specially, to initiate action on any matter affecting planning or development policy and to call for reports, memoranda and other information from Departments of the Central Government and other authorities concerned. These latter powers have already been conferred more or less explicitly on the Development Board but, we understand, have been very little exercised.

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*Some of us think that expert scientific advice can best be obtained by consultation and does not need to be specially provided for in the personnel of the commission.

† Some of us, however, think that the commission should confine itself to making recommendations regarding the allocation of resources in short supply c. f. note on page 4.

this way. Since it is not proposed that the rupee should cease to be a legal tender, there will be no greater incentive to convert under the new system than there is now; and as will be observed from the detailed proposals below, it is not intended that gold should be given by the currency authority at a rate cheaper than the market rate.

63. Apart from the economic loss to India, the existence of a large volume of currency in hoards is a formidable obstacle to the efficient working of any currency system. As long as the circulating media of the country, whether silver coin or gold coin or notes, are employed for hoarding, the control of the currency authority over expansion and contraction of currency must be uncertain and there must be a possibility of fluctuation of prices wider than would be the case if all currency served merely the purpose of a medium of exchange. The ebb and flow of currency in hoards with its resultant effects on the volume of active monetary circulation and consequently on prices introduces an element of uncertainty which makes the working of the discount policy by the currency authority very difficult and may stultify its efforts to control the money market. The mere substitution in the hoards of one kind of coin for another, both of which are legal tender, is no remedy at all for this evil. Under the system which we propose, that portion of the hoards which is held in the form of gold coin will be rendered largely innocuous by the step, which we recommend below, of withdrawing the legal tender quality of the sovereign and half-sovereign; while that which is in the form of silver will presumably in course of time, be robbed of its latent power to disturb internal prices and money rates by being replaced—if the process of conversion should continue—by gold bars; or preferably by other more economic forms of saving, such as the gold savings certificates referred to below. Hoards in the form of bars cannot be utilised for monetary purposes until they have been converted into legal tender money, and such addition to the currency can only be made by the currency authority which will, in exceptional circumstances, if the stability of the currency be thereby threatened, be prepared to deal with it through credit control.

Buying and Selling Rates for Gold.

64. A sound gold standard postulates a statutory obligation upon the currency authority to buy and sell gold at a price equivalent to the par value of the monetary unit. This obligation constitutes the cardinal condition and compelling force for the maintenance of monetary stability in relation to gold, and, through gold, in relation to all monetary systems similarly linked to gold or gold exchanges. In the case of India there is a difficulty in the way of imposing on the currency authority an obligation in this simple form India's demand for gold is not confined to monetary purposes. She has always absorbed gold

are obtained soon, all our vaunted plans instead of leading to the general improvement, which was expected of them, will scarcely make good the ground lost during this period of transition.

93. Owing to the short time available to us for the completion of our work there are many matters connected with Planning which we have mentioned only cursorily or not at all. Thus on the production side, to take two obvious examples, we have said nothing about the development of Fisheries or the improvement of Animal Husbandry, not because we consider them unimportant, but because we were not required nor had we the time to study the plans in detail, and on these particular subjects we have no general criticism to offer of a constructive character.

As regards the planning of distribution, we have made brief references to labour legislation, agricultural prices, and taxation, but we have not discussed in detail such matters as debt relief, wages, land tenures and the developmet of social services. We would like to emphasise however that these and other matters relating to the distribution side of planning all require to be carefully examined and provided for in a system of planned economy.

SUMMARY OF MAIN RECOMMENDATIONS

94. We add below a summary of our main recommendations for action as distinct from our recommendations in respect of general policy.

Machinery of Planning

(1) Appointment of a Planning Commission of 3 to 5 Members under the Central Government with functions as defined in paragraph 82.

(2) Appointment of a Consultative body of 25 to 30 Members (Paragraph 89)

(3) Establishment of a Central Statistical Office (Paragraph 88).

(4) The Tariff Board to be placed on a permanent basis with wider functions (Paragraph 88).

(5) Establishment in the Provinces of an organisation similar to that in (1) and (2) *supra* (Paragraph 90).

(6) Establishment in each district of an executive machinery for ascertaining what works and facilities are required and arranging for their construction or supply (Paragraph 29).

(7) A selection to be made of areas for concentrated development in which pilot experiments embracing every item of the development programme should be carried out (Paragraph 23).

(8) Early appointment of a Priorities Board for allocation of resources in short supply (Paragraph 12).

Supply of trained personnel

(9) A review to be undertaken of training plans in every field to determine whether they are adequate in the light of estimated requirements (Paragraph 22)

(10) Plans for expanding engineering education to be reviewed at once by a special Sub-Committee of the all-India Council for Technical Education (Paragraph 43).

(11) Special attention to be paid to the Labour Department scheme for sending men abroad for practical training. Industries Department to be associated in their selection [Paragraph 64(iv)].

(12) Scientific and Engineering wing to be attached to our representatives in UK and USA to arrange proper courses of training for the men sent abroad and to help in the selection of foreign experts [Paragraph 64 (vi)].

(13) The equipment of Indian Technical Institutions to be overhauled [Paragraph 64(i)].

(14) Action to be taken on the scheme for training skilled craftsmen in the engineering trades, and the preparation of similar schemes for other branches of industry to be taken up [Paragraph 64(ii)].

(15) The question of devising a scheme to replace the Bevin Scheme to be examined [Paragraph 64(iii)].

(16) A survey to be made of available engineering and technical personnel [Paragraph 64(v)].

(17) Every Province and important State to be requested to settle the quantity which it will provide towards the realisation of an all-India target of 4 million tons of extra cereals and to draw up plans accordingly (Paragraph 28).

River development and electric power projects

(18) More electric power projects to be surveyed and planned as soon as possible (Paragraph 35).

(19) CWINC and CTPB to be amalgamated and expanded so as to embrace designing and construction branches. Such branches to be built up for the purpose of carrying out some definite project (Paragraphs 38, 39 and 41).

Industries

(20) A date to be fixed by which Panels should complete their work (Paragraph 46).

(21) Certain industries to be brought under Central control by legislation (Paragraph 53).

(22) Comprehensive labour legislation to be undertaken (Paragraph 54).

(23) The nationalisation of certain basic industries to be considered (Paragraph 56).

Mining

(24) Certain minerals to be taken under Central control (Paragraph 77).

(25) Action to be taken immediately on the report of the Coalfields Committee (Paragraph 78).

Railways

(26) Railway projects for increasing availability of coal to be given the highes possible priority and watch kept on their progress (Paragraph 68). Other Railway plans to be very carefully screened (Paragraph 71).

Research

(27) A review to be made by the Scientific Consultative Committee of all research that is going on. (Paragraph 88).

(Signed)—
*K.C. Neogy (Chairman).
†K. T. Shah.
‡G. L. Mehta.
Zakir Hussain.
S. A. Venkataraman.
§P. M. Kharegat.
V. Narahari Rao.
H. K. Kirpalani.
Shuaib Qureshi.
S. S. Bhatnagar.
E. P. Moon.

December 18th, 1946.

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* Subject to the note on page 28.
† Subject to the note on page 30.
‡ Subject to the note on page 28.
§ Subject to the note on page 29.

The Members of the Board, who were not present at the meetings at which this report was discussed, have not been asked to sign it.

NOTE BY MR. K. C. NEOGY

I regret that I have to append a separate note on the issue of nationalisation of certain industries (paragraph 56 of the Report). I am in favour of State ownership (and some form of State management) of certain key industries. Indeed, a proposal was adopted by the Legislative Assembly two years ago, at my instance, that the Railways should take over inland steamer services that link up or compete with the Railway systems, and it is still awaiting Government decision. In the interest of rapid industrialisation, on which we are all agreed, I should not like to make nationalisation a condition of development in certain spheres. We have already lost a considerable time over planning, and the pace of progress is bound to be slow if development of key industries has to await Government decision on a major policy of this kind, and be dependent on the evolution of an efficient official machinery for the organisation and management of business undertakings. I should like to take advantage of private enterprise for speeding up industrial progress, leaving it open to Government to acquire such industries as may be found appropriate and desirable, at a later date.

K. C. NEOGY.

NOTE BY MR. G. L. MEHTA

I sign the Report subject to the following note :—

I cannot agree with the recommendation made in the concluding portion of paragraph 56 of the Report under the heading " Industries " relating to extent of State ownership and management of Industries. I feel that, under the present political conditions and with the existing administrative system, any proposals for nationalisation are likely to retard industrial development and hamper initiative and enterprise, which are essential and which need to be encouraged for rapid and healthy industrialisation of the country. It is not necessary to go into the relative merits of private and public enterprise or into the various implications and repercussions of nationalisation of industries, in the course of this note. My attitude to this issue is determined by severely practical considerations such as the urgency of the economic tasks before us and the limitations of the existing adminstrative system. I feel that it would be impossible to saddle Government machinery with the onerous work of starting and managing industries which require readiness to undertake financial risks and demand speed and flexibility in their operation. I believe that the machinery of the State can be more usefully and constructively employed in far more urgent tasks such as, for example, the development of water resources and electric power as well as improvement and co-ordination of the transport system of the country, apart, of course, from provision of technical aid and encouragement of scientific and industrial research. No doubt in several spheres, such as where there is a short supply of commodities, or in respect of several industries and especially public utilities, Governmental controls are and will be necessary. In case industries do not loyally cooperate with the operation of such controls and seek to undermine or circumvent them, there would be a clear case for Government taking over such industries if public interests so demand. In case Government decide to take over any industries, they should do so after careful investigation, both technical and financial, of such industries. But at the present juncture, it would, in my opinion, be impracticable to launch upon any programme of nationalisation or specify any industries which should be regarded as avaliable for motionlisation

G. L. MEHTA

Note by Sir Pheroze Kharegat

The object of this note is mainly to amplify or clarify certain points in the main report and to put forward some suggestions.

2. *A Master Plan.*—The existing plans deal with particular aspects of planning. These should be integrated into a broad general master plan of development as a whole which will present a complete picture showing how each plan will fit in with the others. This task should be taken up by the Planning Commission recommended in the report. It will also bring to light aspects of planning which may have inadvertently been omitted.

In particular, it is necessary to have plans not only for production but also for ensuring equitable distribution and eliminating unnecessary intermediaries, for ensuring labour welfare and so on, if we wish to secure balanced development.

Again, items which are common to the different individual plans e.g. training, targets, etc. have to be brought together and a comprehensive picture presented in respect of each and detailed recommendations made about them for the guidance of both the Centre and the Provinces.

3. *Planning and its Execution.*—If work is not to be held up, it is necessary at the time of planning to carry out detailed surveys and enquiries as regards Requirements; these have then to be correlated with the materials available for meeting the requirements so that the bottle-necks may be ascertained. The plan must then provide for increasing the production and arranging for the supply of the materials in question. Unless this is done, a small item (e.g. hooks) may hold up the development of a whole field of work.

4. *Financing of plans.*—The report might give the impression that schemes will not be held up on account of lack of finance and the only bottle-necks will be men and materials. It is my considered view that schemes have been, are being and will be held up on account of lack of finance and this aspect of the matter needs more attention.

In particular, I suggest that Government should make it perfectly clear in unequivocal language that the money required for development schemes, which are sound from the administrative point of view, will be made available; it is not enough to hedge this round with provisos and reservations which create uncertainty and can be interpreted to prevent progress and result in holding up work.

Further, the system of financial control should be suitably modified so as to do away with meticulous financial examination and powers of financial sanction should be entrusted to administrative departments so long as they are within the scope of certain recognised principles. A scheme which has been examined by a Provincial Government administratively and financially and been further scrutinised by the Central administrative Department, does not really need a third examination which is apt to cause considerable delay and hold up work.

5. *Pilot Development.*—It is necessary to emphasise that work should be taken up throughout on as wide a scale as resources permit; but in addition *every* item of development should be taken up in small selected areas (concentrated areas) on the fullest scale possible, all the men, materials and money required for such area being made available. The master plan should be framed for and carried out in the selected area as a pilot development experiment which will test out the plan and show up what practical difficulties are encountered in execution. There should be at least one such area in each province, and if possible one in each division.

P. M. KHAREGAT.

NOTE BY PROF. K. T. SHAH

1. I have signed the Report subject to this Note. It is a Minute of Dissent only regard to :—

(a) the main objectives of National Planning as set forth in paragraph 7-9 of the Report,

(b) the nationalisation or socialisation of Industry discussed in paragraph 5-6 of the Report.

As regards the Machinery for carrying out the Plan, and the procedure whereby that machinery is to be instituted, it is a Note of Amplification rather than a Minute of Dissent.

2. (a) *Objectives of National Planning.*—

Notwithstanding every desire to agree with my Colleagues, as to the nature and purpose of a National Plan, there was fundamental difference about the basic conception of planned development of the country, and the objectives to be attained by such Planned Programme. The entire outlook and approach to the problem is radically different, as was evident on the several topics in the course of our discussions. These topics are too numerous to be particularised ; but this Minute sums up the main differences.

3. The National Planning Committee has given the following definition of a National Plan in a Note for the guidance of Sub-Committees.

> "What is Planning? Planning under a democratic system may be defined as the technical coordination by disinterested experts, of consumption, production, investment, trade and income distribution, in accordance with social objectives set by bodies representative of the nation. Such planning is not only to be considered from the point of view of economics and the raising of the standard of living, but must include cultural and spiritual values and the human side of life".
>
> "The fundamental aim to be kept in view is to ensure an adequate standard of living for the masses. An adequate standard of living implies a certain irreducible minimum plus a progressive scale of comforts and amenities".
>
> "A really progressive standard of life will necessitate the increase of the national wealth five or six times. But for the present the minimum standard which can and should be reached is an increase of national wealth of between two and three times within the next ten years. It is with this object in view that we should plan."
>
> "The different sectors of the Plan have necessarily to be co-ordinated. The essence of planning is an advance on all fronts. There must be agricultural planning, the object being that the country should be at least self-sufficient as regards food stuffs measured in terms of the food index given above, and as regards the quantity of raw material this should be raised by a pre-determined percentage. Soil conservation, afforestation, grass land management, flood control and river management and improvement of inland navigation and transport, improvement of livestock and fodder supply, are items in the planned programme which have not yet been taken up systematically. Power development and the conservation and development of coal and other kinds of fuel for industrial power also demand planning. More important is the planning of different kinds and types of industries, larger medium and cottage, which alone may effectively mitigate the present

pressure of population on the soil. Within a decade the aim should be to produce a balanced economic structure in which about half the population would depend on agriculture".

"Education, general and vocational, and development research also have to be included in a planned programme. The place and organisation of public services should be in keeping with the requirements of the Plan".

"No planning can succeed if the rate of economic progress is outrun by the rate of increase in population. In the planned economy of India emigration shall not be based on the deliberate policy of developing population so as to create a surplus to settle in other countries but such surplus may be allowed to emigrate through agreements with other countries with due regard to the rights of such settlers in those parts."

4. Under this conception, the National Plan would necessarily be a comprehensive coordinated continuous Programme of all round development, proceeding simultaneously on all fronts of Production and Distribution of the National Wealth, of material as well as cultural progress. In such a Programme emphasis may vary from time to time on particular aspects or items in the Plan according to the special conditions, circumstances, or emergency of any given moment. The rate of progress in the several sectors or items of the Plan should follow predetermined standards but those may differ from year to year or from item to item. But the basic conception of an all round, simultaneous programme of controlled growth to predetermined goals in every field and in every item would not be affected.

5. This conception of the Planned Programme of National Development must aim primarily at National self-sufficiency. The National Planning Committee has put forward that objective in the following terms:—

"The principal objective of planning the national economy should be to attain, as far as possible, National Self-sufficiency, and not primarily for purpose of foreign markets. This does not exclude international trade which should be encouraged but with a view to avoid economic imperialism. The first charge on the country's produce—agricultural and industrial,—should be to meet the domestic needs of food supply, raw materials and manufactured goods. But outlets for surplus goods may be explored to meet the requirements of India's international indebtedness".

6. Since the above was written, India's Debt position has changed radically. Instead of being a Debtor who must provide an excess of Exports over imports, she is now a very large creditor in the international market. For the time being, moreover, her exports still continue to be in excess over her imports, though progress of the Plan may soon alter that situation, at least in the initial years of planned development. But none of these considerations prejudice the fundamental position adopted above.

7. The Advisory Board appointed with specific reference to review all the planning work hitherto done by official or non-official agency, should have considered more fully than has been done in the main Report:—

I. The nature and scope of the National Plan.

II. The objectives of the Plan.

III. Adjustment between available Resources, human as well as material and the needs of the country, including Defence.

IV. Adjustment between production and distribution of material goods and human needs.

V. Correlation between the several branches of the Plan, and coordination between the several authorities dealing with carrying out of the Plan;

VI. Capital and Labour requirements of the Plan.

VII. Organisation of Trade,—domestic and foreign,—as part of the Plan.

VIII. The cultural aspect of the Plan,—Social Services and Public Utilities

IX. Administrative machinery for giving effect to the Plan, Central, Provincial, State, Local Governing Bodies, or specially established statutory Authorities, Trusts or Syndicates.

I. *Nature and Scope of the National Plan*

8. The National Plan must bring about an all-round development within a predetermined period. For this purpose it must comprise all aspects and every ingredient of the National life, material as well as cultural, which must be developed simultaneously up to given levels.

9. The Plan would thus be a common integrated programme of development for the whole country. For convenience of formulation and facility in proper supervision or day to day control, it may be divided into several sections. But these must mutually fit into and harmonise with one another, making a consistent and comprehensive whole. For efficient administration the programme affecting each region or unit should be entrusted for being carried out by appropriate local agency in each case. The aggregate needs of the country and of its people, both severally and collectively, in accordance with predetermined standards, must be correlated with or adjusted to the available resources, actual as well as potential, so that there is a real improvement in the Standard of Living of the people individually as well as collectively.

10. Though the attack on all aspects and items in the Plan must be simultaneous, and properly correlated *inter se*, there may, however, be difference in emphasis on particular items or aspects of the Plan. This difference in emphasis may be due to the circumstances at a given moment; or to unexpected emergencies, *e.g.* a War; or the preparation for National Defence. But this difference in emphasis is not to be mistaken for exclusive concentration on only that aspect or item in the Plan which is particularly emphasised at a given moment. It may be, for instance, that at any given moment, it may be more necessary and important for the Planning country to emphasize the need for Defence Industries as against other industries; or for Capital Goods as against Consumer Goods. Because of such varying necessity of the moment, the country may be obliged to devote more energy and resources to the provision of such Defence Material, or Capital Goods up to a given level, than in the case of other industries or consumer goods. But that does not mean that the need for other industries or consumer goods is to be wholly ignored, or indifferently attended to over a long term of years.

11. In fact, in any country, where, as in India, the standard of living in regard to the usual items of consumer goods is, for the large mass of the population, far below any decent level of civilised life, the leeway between the actual standard of living, and that which is taken to be the optimum standard would have to be made up much more urgently than in another country where such backwardness does not exist. Opinion may differ as to the particular commodity more urgently needed than another; or a particular sector to be developed in priority over another. But there can be no difference as regards the comparative urgency of this need; and consequent difference in emphasis on the ways and means of supplying the same.

12. The essence of a comprehensive Plan is a correlated and simultaneous or *Pari Passu* development in all aspects and departments of the national life, and their reaction upon the collective as well as the individual life of the people. The plan must, therefore, embrace not only the provision for national security; but also for the material as well as cultural needs of daily life. In the latter, Social Services, Civic Amenities and Public Utilities would form at least as important an ingredient as the primary needs of man for food, shelter, and clothing, which are supplied by material commodities.

II. *The Objectives of Planning*

13. The objective of a National Plan has been stated compendiously to be the attainment of National self-sufficiency in material goods, social services, public

utilities, and civic amenities, so as to provide a predetermined standard of living for the people. That standard will have to be carefully defined, including all the ingredients that make for a decent living. It must have due regard to the actual and potential resources. This standard of living should be assured to and be made actually available for each and everyone.

14. For this purpose, not only the production of commodities and services, but also their equitable Distribution among the people, must be simultaneously attended to. Law, custom, tradition, or any social institution, that stands in the way of such an equitable distribution and readjustment, should be removed or remedied.

15. The attainment of such a standard of living would be facilitated by prescribing objective Norms, which must be attained within a given space of time. One form of prescribing these Norms is to fix Targets, specific goals, in each item or aspect of the Plan so as to achieve the main objective of National self-sufficiency by corresponding attainment in detail. These Norms or Targets must be concretely measurable ; and such measurement should be provided by what may be called control figures intended to help in gauging the rate as well as the extent of the progress achieved at any time.

16. These Norms or Targets themselves must not be looked upon as merely pious intentions. They should rather be taken as imperative injunctions, which the authority charged with carrying out the Plan must be required to comply with. Adequate and appropriate sanctions must be provided where necessary to see that they are attained. Necessary and appropriate machinery will, of course, have to be devised to permit these injunctions being duly and fully carried out, in the letter as well as in the spirit.

III. *Adjustment between Resources and Obligations*

17. Under the conception of the Plan given above, proper adjustment between the nation's aggregate resources and its total needs or obligations will be the main task before the Planning Authority.

18. On the Resources, or the credit side of the planned National Budget, so to say, must be included the actual or potential material,—human as well as physical —with which the planned Development is to be accomplished.

19. To speak of Planning in reference to the human material, the man-power of the country, may sound ridiculous. It must nevertheless be taken as an integral and unavoidable item in the Plan. Without proper attention to the quantity and quality—number and training—of this material, the entire Plan would be liable to be jeopardised. Ways and means can and must be found, through education and example, for suitably limiting families, and the proper training and appropriate employment of the man-power thus made available, to obtain the highest results in every item of the Plan.

20. Planning of material Resources is much more easy, and far more commonly accepted. An estimate of the actual position in respect of the principal resources in Agriculture and Industry, Mining and Forestry, services and Utilities, with due allowance for the possible increase and expansion by means of known and tried scientific aids and technical devices, would be an indispensable pre-requisite for a proper Plan on the material side.

21. On the Obligation side, similarly, would be included the total needs of the country, its human and animal numbers, in accordance with the prescribed norms. These norms must be scientifically calculated, and related to consumption by each individual. The wants of man and beast thus determined must make full allowance for needs other than primary appetites.

22. A National Budget, with the two sides of Resources and Obligation, must, accordingly, be prepared as the first condition of scientific planning. Such a Budget must be for a period during which a given stage of the Plan is to be achieved. This period may be more than one year, probably five years, as the Plan is a continuous process, constantly creating new reactions, and not aimed at obtaining a static end. Each such stage will set up conditions and circumstances which are bound

to react upon the stage which follows, and substantially modify the same. Adequate arrangements must be made for the absorption of the shock as and where and when it occurs.

23. It may be that, at the initial stage of the Plan being put into operation, the two sides, credit and debit,—Resources and Obligations,—do not balance. The hiatus must not be taken as irremediable. It is the aim of planning to make good the deficit. If it is on the resources side, it must be made good by supplement in the shape of foreign imports of material goods of which we are in a deficit as compared to our needs. On the Obligations side, the hiatus must be adjusted, by better distribution, or by expediting the predetermined stages of the standard prescribed for that stage, so that greater benefit than originally planned for should be obtained by the individual during that stage.

24. In this view of the National Budget under the Plan, the public or Government Budget would only be a part or fraction of the total National Budget. This part would consist mainly in a redistribution or readjustment as between the Resources and Obligations, the means and the needs, to be obtained from and provided for certain sections of the community. The money means and expression is a convenience, which must not be confused with the ultimate reality.

Distribution of National Wealth

25. The Plan itself must be comprehensive, an all-embracing programme of National Development. Its progress must, therefore, be simultaneous in all departments of both production and distribution of new wealth, as well as in regard to all the intangible means of better living for the individual.

26. For this purpose, it is not enough to concentrate attention only on increasing the volume of material wealth within the country, with little or no regard to the more equitable,—if not equal,—division of that wealth so as to effect a proportionate improvement in the standard of living for everyone and not merely the average within the country irrespective of age, sex, civic conditions, or social status.

27. The Standard of Living, as conceived in the preceding, will include not merely commodities or services, which meet the primary needs of human existence, *e.g.*, food, shelter, clothing; but also the intangible,—but nonetheless important,—wants of civilised life. The Social services of Education, Health, Entertainment or Recreation. for the individual; and Public Utilities, like Transport or Illumination, must not be neglected while framing the Plan. They must be provided *pari passu* with the other items in the Plan, lest man does not come to live by bread alone.

28. The Standard of Living must not be, moreover, merely a mathematical abstraction,—a mere average. It must be a concrete fact, actually realised and realisable by and for every individual in his or her daily life and work.

29. In the process of executing the Plan in detail, it may be that occasional emphasis may have to be greater in one item or aspect than another. There may in consequence be occasional disturbance of the level of employment and the standard of living in particular cases. These must be considered and treated as temporary dislocations or aberrations, for which immediate steps must be taken to rectify. The executing Machinery should, in fact, be such as automatically and immediately to flatten out any such disturbance of the level as soon as it occurs.

IV. *Correlation and Co-ordination*

30. The various aspects of the National Plan must be mutually correlated, so that the progress of every side should be equal or proportionate and simultaneous. Every cog in the machinery must, in other words, retain its place, and move forward so as to keep pace.

31. Similarly, there must be co-ordination as between the several agencies entrusted with giving effect to the Plan. The activities of the several parts of the machinery set up for carrying out the Plan—Central, Provincial or Special—should

be mutually co-ordinated so as to avoid overlapping, needless waste of energy, or dissipation of resources. There should be no lopsided development or dis-balanced growth in one department at the cost of another, for that would create new problems which may prejudice the success of the plan. This does not mean that fullest advantage of every scientific advance or mechanical invention, which may result in new technique for saving labour or time, should not be taken. The task of the Planner would, however, be so to absorb the shock of each new discovery and even new invention, so to assimilate the changes or inventions, as to cause the minimum dislocation in the existing stage of an organisation or activity.

32. Machinery for working the Plan must be so devised as to receive and absorb such shocks with the least disturbance especially if they take the form of causing unemployment. Schemes must be ready to provide alternative use, occupation or investment, on the same if not better scale, to such land, labour, or capital as may be thrown out of employment for the time being by any such change, invention or development

VI. *Labour and Capital*

33. (A.) *Labour.*—For securing the fullest benefit of the Plan, adequate organisation of the Labour Supply and mobilisation of the man-power of the country is necessary. For providing adequate supply of skilled labour in all branches of productive activity,—whether Agriculture, Industry, Forestry and Mining; Trade, Banking, Insurance or Transport Services; Power-supply, Health, Education, Entertainment, and the like,—appropriate training arrangements must be made, side by side with providing employment for such trained personnel.

34. Fluctuations in the volume of employment in any particular industry, Public Utility, or certain cultural activities, must be minimised, if the Plan is correlated in all its several items and aspects, and the supply of Labour in each. In case, however, due to specific circumstances of any given moment, or sudden and unexpected emergencies, a substantial change in the volume of employment becomes inevitable in particular directions or activities, means must be found to make these derangements of the minimum extent and duration possible. If at any time work becomes absolutely less in volume, then the reduced volume must be equitably shared among all workers. There will have to be some measure of social conscription providing work for all adult workers in accordance with their aptitude and training and eliminating parasitism of any kind.

35. Organisations of labour, whether Trade Unions or professional Corporations with their adjunct of Labour Exchange Employment Bureau, Information Depots and other such machinery, must be made compulsory, if only to facilitate the administration of the Labour section of the Plan. Every worker must be required to join an appropriate organisation as condition precedent for receiving the full benefit of all the Labour Legislation and other means to improve the lot of labour.

36. The need for trained personnel, however, is no less intense than exacting. It is possible that, in the initial stages of the Plan, trained personnel may not be available within the country itself. In that case, such assistance may be obtained from outside sources so as to tide over the initial difficulty. Regarding the terms and conditions on which such foreign labour should be attracted, there is no great difference of opinion, and so it is unnecessary to labour this point further.

37. (B) *Foreign Capital.*—Substantially the same principles should be applied to the need, if any be felt, for attracting foreign capital to complete any section or aspect of the National Plan. Generally speaking there would be greater objection to the investment of foreign capital in any enterprise under the Plan, than to the import of foreign skilled labour. The explanation lies in the fact that, whereas labour can be definitely restricted in time and space, capital is likely to have its influence in unseen ways and to an unfathomable degree.

38. The terms and conditions, therefore, on which Foreign Capital may be allowed to be invested in any part or enterprise under the National Plan, if proved to be absolutely inevitable, should be so framed and so worked as to restrict its influence to the inevitable minimum. The right, moreover, must be reserved to Government for effective control over the policy and management of every enterprise, utility or service, which is part of the Plan and financed, in part or wholly, by such foreign capital.

39. The problem of financing the Plan as a whole has been approached from a different angle in this Note, as distinguished from the line adopted by my Colleagues. The following paragraphs embody my views on this subject.

40. Financing of the Plan, in its several aspects or items both as regards current and capital expenditure, will have to be distributed as between :—

1. Government of India or the Union Government ;
2. The Government of the various Units, whether States or Provinces, which are members of the Union, and
3. Private enterprise, Banks or other Financiers.

41. Estimates of the capital finance needed for carrying out the Plan, particularly in regard to the non-recurring Capital Expenditure, would have to be based on past experience of similar ventures, or present conditions. Neither of these, however, is altogether reliable for making such calculations which may differ materially from the actual figures when finally realised.

42. Notwithstanding the difficulty of making such estimates, attempt must be made to prepare such estimates, making due allowances for the possibility of variation on account of factors outside the control of the Indian Authorities, *e.g.*, Price-level or international Exchange, or Scientific discoveries, or mechanical inventions affecting these calculations. The Plan, being necessarily a long-term arrangement, would be very much exposed to such factors which may falsify the estimates quite adventitiously.

43. The proportion of such outlay to be shouldered by any of the agencies mentioned above is equally difficult to lay down in advance. Certain general principles, however, may be indicated which should govern their respective share for Capital financing and current expenditure, or working costs.

44. Thus, for example,

(*a*) For any industry, service, or utility which is of a National character, and of vital importance to the very life of the people, or which is, so to say, a mother industry on which other industries may be based, *e.g.*, industries concerning National Defence, or the production of machinery, the Union Government alone should provide all the necessary capital finance, and carry on the management of such industries. That is to say, it should provide working expenses, and take the surplus or profit, if any, from such enterprise.

45. The initial capital should be provided out of accumulated Reserves or borrowed funds or the surplus of successful public enterprise. All capital is, in the ultimate analysis, nothing but the surplus of production over consumption, which may easily be conserved in the form of various reserves, and kept ready mobilised, so as to be available for utilisation wherever and whenever needed for expanding and improving existing industries or starting new ones. It must be a distinctive and imperative feature of planned economy to facilitate the formation of such Reserves and their utilisation as and when needed.

46. (*b*) Industries, enterprise, or activities which tend to become monopolies,—largely because of fiscal protection or other form of public aid,—should likewise be financed, as far as possible, by the public.

47. The division of capital financing obligations as between the Central and Provincial, State or Local Governments should follow the nature of the enterprise;

if it is predominantly of a local or regional character, it must be financed and managed by the local or regional authority; while if it is of an All India nature it must be owned and operated by some central authority.

48. Enterprises which are regional in location but national in importance, *e.g.*, mines or hydro-electric power works, should be governed by a common policy, though ownership and conduct of each such enterprise may be in private hands.

49. (*c*) Everywhere Government is unable to finance out of its own resources any major industry of National or vital importance and is, therefore, obliged to have recourse to private capital; such private capital should not be left to do the entire financing, and so command the sole control and management of such capital. Government, or some statutory public authority specially appointed for that purpose, must be associated as partners in each such concern.

50. Provision must further be made in the partnership agreement for the eventual buying out by Government of the private partner's share, on such terms as may have been laid down in each such agreement, and the right must be exercised after a given number of years.

51. During the currency of the Partnership Agreement, Government must retain the controlling voice in all questions of policy or general management of the enterprise. They must either hold a majority of shares, or at least hold proxies for a majority of shares necessary to take any important decision of policy.

52. (*d*) Any industries of relatively second-rate importance, such as the production of luxury goods,—where private enterprise may under the Plan be left to provide all the necessary outlay for initial equipment, plant and machinery, as well as for working expenses,—adequate arrangement must be made for effective public supervision and control. This is necessary to guard against dissipation of the surplus as well excessive consumption of such commodities, services or utilities.

53. (*e*) Any enterprise or activity financed by private capital, and requiring for its commercial success fiscal protection or other aid from public funds or authority, should be required to submit periodical reports of its working, including its accounts and balance-sheets. It must accept and carry out any suggestions or directions that may be issued by the appropriate public authority as a result of the scrutiny of such reports, etc. It must agree to fix the maximum profits which can be distributed among Proprietors, not exceeding 10% per annum on paid up capital. Finally, it must agree to give model or standard conditions for their employees.

54. (*f*) In no case of any Key, Essential or Mother industry concerned with National Defence, public utility, or social service, or for exploiting the mineral, forest and other forms of natural wealth of this country, should foreign capital be allowed to be invested in any form.

55. Any indigenous industry, for which capital is provided by private enterprise, must be made to forfeit any benefits, or special consideration by way of fiscal protection, or financial or other aid, if it obtains the aid of foreign capital.

56. No foreign capital should be permitted to be invested, whether in proprietary, partnership or joint stock concerns, for any industry, enterprise, utility, or service in this country, without the previous sanction from Government, and subject to Licence specially issued in that behalf. The conditions of such Licence must, in the first instance, be laid down by the National Planning Authority, which shall be competent to revise these conditions from time to time, and to enforce the same by means of such machinery of inspectorates, special inquiries, etc., as it considers proper and necessary.

57. Foreign capital, at present invested in any of the essential industries or for the exploitation of the mineral, forest, or other forms of natural wealth of this country, should be required to obtain a Licence, and conform strictly to the terms and conditions laid down in the Licence regarding periodical reports, publication of accounts and balance-sheets, stipulation regarding limited dividends and the like. At the earliest opportunity these enterprises must be acquired by Government

provincial or national, as may seem proper in each case. The Licence necessary for such enterprises must explicitly lay down this condition.

58. No industry or enterprise, whose capital is provided by foreign financiers in any form or to any extent, should be allowed to camouflage itself as Indian Enterprise by adding the word "India" after their normal style and title.

59. Subject to these guiding principles, initial and working capital may be provided, from time to time, in such proportions by the Central or Provincial Government, Local Governing Bodies, Statutory Corporations, as well as private enterprises as may be deemed appropriate.

60. The division of financial resources as between the Provincial or State and Central Governments is difficult to lay down in advance. In general, however, it may be stated that industries, enterprises, utilities or services of a National character, or coming under the new Constitution within the jurisdiction of the Union Government, or which are entrusted to that Government by specific agreement by any component units of the Union, should be financed principally, if not exclusively, by that Government.

61. On the other hand, any enterprise, utilities or service which are directly of local benefit, should likewise be financed by the Unit Government, or local bodies under it, or by special statutory bodies created for the purpose. If between all these, the Unit Government is not able to finance the enterprises, it may do so in association with private enterprise, on such terms and conditions in conformity with the principles laid down above.

62. In specific cases of national importance coming within the Unit jurisdiction, the Central Government may make grants for undertaking or working any industry, enterprise, utility or service by a Provincial or State Government, on definite conditions. These conditions include the right of control and supervision, of giving advice and instructions reserved to the Union Government. They must also reserve the power to inspect the books of accounts, and from time to time to scrutinise the general working, as well as to make suggestions for improvement or correcting any abuses in the actual operation. -These must be carried out by the Provincial or State Governments concerned.

63. The limitation of profit in the event of any enterprise, utility or service being financed as regards initial capital by the Government of a unit, or of a local body, in association with any private enterprise must be accepted and strictly adhered to.

64. The institutions providing capital finance,—namely Banks, wherever they function,—must be treated and dealt with as public utility corporations. As such, they must be placed by law under the rigid control and supervision of the Union Government, if not wholly nationalised as Public Utility Corporations. The same principle must also be applied to the Instruments of Credits used by Banks and other financial institutions for providing fixed and working capital.

VII. *Organisation of Trade*

65. Though the Central objective of the Plan has been stated to be the attainment of National Self-sufficiency, and the consequent improvement of the actual Standard of Living for every individual in the country, that aim cannot be realised unless the Plan contains appropriate machinery for effecting exchange, or Trade, as between the producer and the consumer.

66. There is, indeed, no intrinsic opposition, as is sometimes believed, between the producer and the consumer. Every individual is, actually or potentially, both a producer and a consumer. But though there is no such intrinsic opposition as between the consumer and the producer, their mutual advantage will not be simultaneously promoted, unless there is a prompt exchange of surplus produce from the producer to the consumer.

67. The most important portion as well as aspect, quantitatively and qualitatively, of this exchange or Trade is that of commerce in commodities within the

country as between the several parts thereof, or what is called the Internal Trade. The Exchange of commodities and services as between two or more countries is foreign Trade. This is much less important, in volume as well as value and in its reaction upon local industry, than Domestic Trade.

68. All the ancillary services, which help to organise and conduct Trade on sound lines, bringing fair benefit to both parties, *e.g.* the medium of exchange or money and Currency, and its complement of credit and banking; transport for carrying goods and services from the producer to the consumer; and insurance, with all the sub-heads, so to say, of these three important categories of ancillaries, must be carefully regulated by the Union Government exclusively. Similarly the basic national policy for Trade, and, through it, of protecting assisting ,or encouraging indigenous industry, sufficient at least to provide for the whole of the local market, must be carefully attended to if the Plan is to be effectively carried out.

69. Both for the Internal and for Foreign Trade of the country, some kind of Central control and supervision over that branch and all its ancillaries, is inevitable in the interests of the proper execution of the Plan. If trade is made a means for encouraging the volume and quality of production, and thereby improving the level of consumption within the country ; or if that section of it which is concerned with exchange of goods and services between this country and another, is to bring a fair share of benefit to this country, and not become an instrument of exploiting our material and human resources for the benefit of others, such control and supervision are indispensable.

70. The Central Government must, therefore, be armed with adequate power and authority to control or supervise, if not also to monopolise, at least the Foreign Trade of the country, and to have the sole charge of all its ancillary services of money, credit, exchange, and banking, tariffs and transport, insurance and communication.

71. In regard to the Domestic Trade, each unit should have its own statutory Corporation to conduct, control or supervise that trade in close harmony with the Central Organisation and in conformity with its policy.

VIII. —*Cultural side of the Plan.*—Social Services and Public Utilities.

72. The last, but nonetheless important, section of the National Plan is that relating to the cultural life of the people. The Plan will by itself affect a revolution, which will be nonetheless significant because it will be silent. India has been going through an age of transition, in the social as well as economic field, the magnitude of which is scarcely realised. Many of the oldest social customs and institutions effecting vitally men and women in their daily life and work, are changing from the bottom. During the last two wars, and because of them, conditions have been changing even more rapidly and radically with a marked trend to deterioration, which made the people ignore or overlook moral values and considerations in life other than those of a purely material character. This is a heavy handicap and will have to be redressed at the earliest opportunity.

73. The most effective means of long-range change is mass education on sound lines. The Education system must, therefore, be completely overhauled and reconditioned, as an integral part of the Plan. Customs, Laws or institutions, which stand in the way of a continuous progress on pre-determined lines, would, no doubt, have to be scrapped, modified, or re-adjusted to the new conditions created by the successful carrying out of the Plan, in all its branches, items, or aspects. A specific section of the Plan must, accordingly, be devised and worked so as to stop and correct the growing change for the worse. It will require radical amendment of the laws and customs, institutions and tradition, which are incompatible with changing conditions, or which lead to a general deterioration. It will finally need striking example, through public agency, to demonstrate and emphasise the need for a new vision, new values, new objective, new technique. All the latest devices or instrumentalities of the cinema and the Radio, the Television and the Teleprinter, must be utilised

to the utmost to explain, illustrate and emphasise the national objective, and the need to achieve it in the interests of the individual himself and of the generations yet unborn.

74. In the same category of Social Services may be included the services of Medical Relief and Public Health throughout the country. Like Mass Education, the improvement of Public Health must be considered a form of long term investment, the return on which may not be in the form of immediate and direct money profit. The saving of working days through avoidance or reduction of illness among workers is as direct a return measurable in money as can be found. A proper Health Service, like a sound system of mass education, will be of immense help in making the plan more easily realised, and its chief, objective *viz.* amelioration in the standard of living, more fully achieved.

75. The average expectation of life at birth for the people in India is barely 26 or 27 years, as against 55 in the United Kingdom. Infant mortality of children below one year of age in India is 15 to 20 percent, as against 5% or less in other countries. The high rate of mortality amongst women in child birth is too notorious to need specific mention. All these evils must be cured by means of preventive as well as curative medicines. Improvement in diet and better care of the body will, of course, be part of the Plan and will form part of the Section relating to the Distribution of Wealth and Consumption. But the maintenance of an individual in good health and working efficiency must be part of this section of services and Utilities.

76. The organisation of Public Health Service will emphasise the preventive aspect of disease by improving such prerequisites to good health as clean water supply, sound drainage, a system of vaccination or innoculation against the common scourges of this country. An adequate system of Medical and Nursing Service throughout the country will help to check the spread of the disease, whether epidemic or not, to a very large extent.

77. The organisation of Medical and Nursing services, as an integral part of the National Plan, must secure properly qualified personnel and nursing attendance in every part of the country, and for every citizen needing it. Establishing a well equipped medical unit, with an adequate supply of drugs and medicines, as well as medical and surgical apparatus and instruments, for every 1,000 of the population; dispensaries and hospitals and specialised wards in such Hospitals; Maternity Homes, Nursing Homes, Sanatoria, Convalescent Homes,—would all go a long way in minimising the incidence of disease, and improving the general stamina and adding to the expansion of life throughout the country. The National Planning Committee has given a lead in this regard on the lines suggested above, and the Bhore Committee has in all essential respects followed suit.

78. The list of social services and civic amenities can be very much enlarged especially if we emphasise the Cultural side of the Plan that they make up. Public Entertainment by spectacles, organised recreation, both physical and intellectual, should be no less an important part of the Plan. The organisation of plays, concerts, cinemas, lantern lectures, Radio talks, and Lectures on cultural subjects form the main items in this section of Plan adopted in Russia. Nor can we in this country do better than imitate the U.S.S.R. in this regard.

79. It would take us too much into detail of this enormous service, now largely in private hands, if we were to particularise its innumerable forms. In view, however, of the great material importance of this service, not only to the present but to the succeeding generations of India, it would be better to organise and provide it through public bodies, such as Municipalities, District Boards, Village Panchayats or specific Statutory Corporations, established for the purpose from which the profit motive is eliminated.

80. A similar list of Public Utilities may likewise be added as an integral part of the National Plan. Foremost amongst these Utilities are the production and supply

of Power, whether thermal or electrical, coal or oil, and other sources of energy. Transport by land (road or rail), water (river or sea) and air; Communications by post, telegraph, telephones and Radio; Drainage and Lighting; essential Services incidental to Commerce or Exchange of commodities, such as Banking and Insurance, may also be brought in this category.

81. The supply of accessories or vehicles of most of these Utilities will require basic industries to be started in this country. If these Utilities are to be worked in the public interest, without any thought of Monetary surplus for the state or the Public Body which conducts them, their basic industries also must be owned, manned, and worked by public bodies or Statutory Corporations, wherein the profit element is likewise rigorously excluded.

82. For the proper working and success of the Plan, it is important that these Utilities—as services—be founded, owned and managed as Public Enterprises, conducted by Government directly,—whether Central, State, Provincial,—or by some specific Statutory Corporation in each instance from which the profit motive is wholly eliminated. Each of these should, again, be linked up with the others of its kind, to constitute a well coordinated network of these Utilities all over the land.

83. The industries providing the equipment for these services and Utilities,—*e.g.* all types of vehicles needed for the Transport and Communications Service,—should likewise be owned, manned and controlled by some public body or statutory authority. Otherwise the private owner of these industries, working for his own personal profit, will levy a disproportionate tax on the community as a whole, and prevent the service being operated entirely in the public interests as it deserves to be.

IX. *Administrative Organisation for carrying out the Plan.*

84. For giving effect to the Plan, an appropriate and adequate administrative machinery will have to be set up. This must be in conformity with the Constitution of the country, defining the powers and functions of the Central Organisation as well as that in the component parts of the Union. Much of the detailed administration for carrying out the plan will, under the basic principles of the new Constitution, as now accepted by all Parties, have to be entrusted to the Provinces or the component parts of the Union. A detailed description of the Machinery, deemed appropriate and adequate for carrying out the Plan, is given in the third section of this note.

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SECTION B

Nationalisation or Socialisation of Industries

85. There is a fundamental difference of opinion on this most important section of our reference. It is common ground that Planned Development of an all-round character would be impossible unless there is systematic control and close regulation in every field of economic development.

86. The essence of Planning being co-ordinated progress on all fronts simultaneously, every sector must be properly organised, closely harmonised and dovetailed, and effectively controlled as an integral part of the Plan. The most effective degree of such control would, of course, be attained only if the whole field of Production and Distribution is under the direct ownership and management of the State, whether directly as Government Enterprise or under some specially created Statutory Bodies.

87. Government or Public Collective Enterprise may be that of the Union Government or of any component part of the Union, whether Province or State, or any Local Body, such as a Municipality, or District Board or Village Panchayat. This would depend largely upon the constitution of the country now in the making, and the number and nature of the functions, powers and authority assigned to the Centre and the Units.

88. The Statutory Bodies, on the other hand, may be established by Legislation by the National or Union Government, or the Government of any component part of the Union , and may be given specific powers for the purpose. These Semi-Government Authorities would have to be organised in appropriate forms to suit the nature of the enterprise, whether a Productive Concern, a Public Utility, a Social Service, a Civic Amenity, or any other concern for the Distribution and Consumption of wealth.

89. Assuming that the most effective and economic organisation and working of such Enterprise, Service, Utility or Amenity would be as a direct State Concern, it can be easily applied to new ventures in a relatively virgin field *e.g.* in the Automobile, Ship-building, or aircraft industries, Locomotives and other rail-road equipment. These are still practically virgin fields in India and may well be occupied by Collective Enterprise.

90. The interests of planned economy inevitably necessitate that this principle of collective enterprise be extended to other fields as well. Where, however, there are vested interests already in existence, consideration will have to be given as to how and by what stages those private interests working for personal profit are to be dealt with, and the entire economic system made homogeneous. So long as private enterprise motived by the desire for individual gain remains in any considerable sector of the National Economy, unamenable to public control, regulation or supervision, the Plan as a whole would be liable to easy circumvention and defeat. However thorough and rigid the control may be, short of direct public ownership and management, it would be liable to be defeated by the ingenious devices of the private profit-seeking Entrepreneur. It seems, therefore, necessary to liquidate the existing private enterprise in every considerable field of economic development, and bring all efforts, which are part of an all-round Plan of National Development under public ownership, control and management. The liquidation may be effected by expropriation pure and simple ; or acquisition by ordinary process of law with, or without, such compensation as may be deemed just and appropriate.

91. The strength of private vested interests is particularly [illegible] in the major industries which are operated for profit and not as part of a National Plan Systematic effort will accordingly have to be made to socialise them where they are in private hands, and keep them *ab initio* in public hand ; where they have to be yet established, so as to make them part of the plan, keeping pace with the rest of the Programme.

92. The National Planning Committee made four tentative categories of industries as follows :—

Defence Industries

1. Fire arms (land, air and marine) and their parts.
2. Munitions, cartridges, explosives, shells, torpedoes, etc.
3. Tanks and armoured cars and other forms of mechanical equipment especially designed for military purposes.
4. Warships of all types including submarines.
5. Military aircraft of all kinds.
6. Gases for warfare and gas-masks.

NOTE:—Warships and Military aircraft can also be made in ordinary peacetime establishments.

Key Industries

1.. Power-Hydro and Thermal (generator).
2 Fuel, coal and fuel wood, mineral oil, power alcohol, natural gases.
3. Metals, ferrous and important non-ferrous, including winning of ore for them.
4. Industries for the making of machine tools.
5. Industries for the making of machinery and machinery parts.
6. Heavy engineering industries for the building of ships, locomotives, wagons, automobiles, aircraft and the like (vital).
7. Instruments and apparatus,—commercial, industrial and scientific (standards).
8. Chemicals, heavy chemicals, fine chemicals including dyes (some vit[illegible] fertilisers and refractories.

Public Utilities

1. Distribution of electricity, gas and other forms of energy.
2. Public transport and communication services.
3. Water supply.
4. Banking and Insurance were reserved for consideration later.

Cottage Industries

1. Textiles (silk, wool and cotton), cotton spinning and weaving especially up to 30s.
2. Dyeing and Calico Printing.
3. Cotton ginning and cleaning for hand spinning except pressing.
4. Oil crushing.
5. Soap and Toilet articles.
6. Furniture and timber works.
7. Paper for use as Stationery (except paper for newspapers, art printing, for wrapping and packing etc.).
8. Sugar.
9. Rice husking and milling.
10. Brass, copper and silverware.
11. Tallow, guts, and Glue.
12. Tanning and Shoe-making.
13. Pottery and Ceramics.
14. Glass Bangles.
15. Beads.
16. Polishes, paints and varnishes.
17. Locksmithy.
18. Nails.
19. Blacksmithy.
20. Cutlery.
21. Hemp, Coir and Rope.
22. Bristles and fibres.
23. Bricks.
24. Tiles.
25. Gold and silver threads.
26. Salt.
27. Toys.
28. Umbrellas.
29. Gums.
30. Resins.
31. Matches.
32. Carts.
33. Country crafts.
34. Tailoring.
35. Embroidery.
36. Hosiery.
37. Buttons.
38. Carpets.
39. Confectionary.
40. Fruit preserves and syrups.
41. Dairying.

93. The list of cottage industries is not intended to be a comprehensive one. There are, as is well-known, many hundreds of cottage industries. This list was prepared tentatively with a view to mentioning some industries which are or may be both cottage and large scale, and where there might be a conflict or overlapping between these two methods of production.

94. The Committee held the view, in regard to the most considerable of these categories, that :—

The National Planning Committee had previously laid down certain general principles in regard to these matters. These will be found in the Red Book. I should like to draw particular attention to :—

(*a*) The Congress Karachi Resolution which states that " the State shall own or control Key Industries and Services, Mineral Resources, Railways, Waterways, Shipping and other means of public transport ".

(*b*) Planned advance has to be measured by certain objective tests from year to year. These may be laid down as follows :—

(*i*) The improvement of nutrition from the standard of an irreducible minimum requirement of proteins, carbohydrates and minerals (as well as necessary protective foods having a calorific value of 2,400 to 2,800 units for an adult worker).

(*ii*) The improvement of clothing from the present consumption of about 15 yards on an average to at least 30 yards *per capita* per annum.

(*iii*) Housing standards to reach at least 100 sq. foot *per capita*.

(*c*) Viewed from another standpoint, the following indices of progress should be borne in mind :—

(*i*) The increase in agricultural production; } To at least the requirements
(*ii*) The increase in industrial production; } laid down in (b) (*i*) and (*ii*) above.

(*iii*) The diminution of unemployment ;

(*iv*) The increase in *per capita* income ;

(*v*) The liquidation of illiteracy ;

(*vi*) The increase in public utility services ;

(*vii*) Provision of medical aid on the basis of one health unit for 1,000 population ;

(*viii*) The increase in the average expectation of life.

95. This policy applies by categories of industries. The general question, however, of socialisation at least in all the major industries, services and Public utilities still remains to be faced. Notwithstanding the experience of the older Nations in the field of modern industrialisation, where they have experienced the evils of unplanned industrialism under private enterprise and so have been replacing private by Public Enterprise bringing, the former under an increasingly more rigid control of the latter, the vested interests—both Indian and non-Indian,—of private enterprise in this country are still too strong to surrender at discretion. The chief arguments of their champions to maintain them practically unaffected and unadulterated are :—

(*a*) The conduct of Industry requires personal initiative and individual supervision which public ownership under Bureaucratic management will not provide ;

(*b*) There are considerable risks in any new industry which it would not be right for the State or the Community at large to shoulder, so long as private individuals are available to do so;

(*c*) As recent experience has shown a degree of corruption of public officials in charge of economic controls etc. grows, which cannot be in the best interests of the people;

(*d*) In the absence of personal supervision of the Proprietor, concerned in keeping up his profit, inefficiency is apt to grow and undermine the prospects of the Industry.

96. In answer it might be pointed out :—

It is not in Public Enterprise only that bureaucratic tendencies assert themselves. Wherever any enterprise is on a large scale, employing large numbers, with an ever-increasing basis of division of labour in time as well as space, bureaucracy inevitably sets in. That is to say the conduct of the enterprise will have to be according to some settled code of regulations, which would necessarily be worked and enforced according to the established canons of interpretation, and governed by the precedent previously established. Red tape, delay and circumlocution are unavoidable. This inevitably makes the working of such Enterprise somewhat lifeless and impersonal, whether it is in the hands of Government, some statutory body, or private individuals. It is, therefore, no particular evil of public management that Bureaucracy becomes established in socialised enterprise, and the management of the concerns tends to be more and more standardised.

97. The fact that there are settled rules and tests for the conduct of the industry, fixing prices, appointment of public servants, with reasonable conditions for their remuneration and pension, and elaborate codes of discipline, integrity and efficiency is a guarantee for satisfactory manning and working socialised industry, which thus has a much greater chance of steady progress than if the same were in private hands. For, in the latter case, individual vagaries and uncontrolled nepotism predominat in the selection, appointment, removal and dismissal of any member of the staff or the general personnel of the concern. The private individual considers himself to be solely and exclusively entitled to deal with his employee, apart from such modicum of collective bargaining, or Labour Legislation as may have been in vogue. There is no appeal from his decision and any guarantee of just or decent treatment, and even living wage to the worker is wholly illusory since profit to the Proprietor is the only important consideration.

98. It may, indeed, be that, notwithstanding every attempt to carry out properly the rules or regulations of Public Service, these may at times be misapplied and abused. But that handicap is common to all works of man. Any human Institution is liable to be abused. That cannot prove that the Institution as such must be condemned.

99. As for the risks involved in any new venture to be started, or existing Enterprise being expanded, which the private promoter or proprietor is supposed to shoulder,—and thereby justify his existence, there are Enterprises, —whether Industries Services or Utilities,—in which it would not be right and proper to allow the initial risks to be shouldered by any individual. The Community as a whole must establish and operate them, and bear the risks, if any. It is just because, in some cases, risks are very considerable, that such ventures may not be provided at all if left to individual enterprise, since private individuals would not be forthcoming. Yet if those Enterprises are of vital necessity to the country as a whole, as they often are, if they afford much needed security against any foreign aggression, or provide basic industries, they must be started by the State whether or not private individuals are forthcoming to undertake them.

100. Apart from this, however, in every well-conceived Plan, the risks must be minimised by careful planning to the point of non-existence. The more perfect the Plan, the less must be the risk of any sector or item in being established and worked. Any such risks, as there may be, will be distributed all over the Community ; and insured against, so to say, at negligible cost to the Community. Risks, moreover, are an inevitable concomitant of competitive individualism. In a socialised system they will progressively cease to be.

101. So far again, as there are risks and handicaps against any private enterprise in any field becoming a commercial success, the Community is expected and called upon to protect, safeguard and encourage such enterprise, so as to make the country more self-sufficient than it would otherwise be. The cost of such fiscal protection, or financial assistance to any such private enterprise, is disproportionately greater than the ' risks ' taken by the Community as a whole in starting such enterprise as a socialised endeavour.

102. More often than not, such Private Enterprise, when established with the aid of such protection at public cost will not part with its gains, either to the workers, in such enterprise in the shape of higher wages and houses, or to the consumers in the shape of lower prices. It would, in fact, try and seek markets abroad to dump the surplus output, since the Home Market becomes their close preserve, thanks to Tariff walls.

103. These attempts at dumping in foreign markets, again, necessitate the maintenance of costly Armies and Navies and Aerial Fleets, all in constant preparation against any possible warlike threat from rival sellers in the same market. This very danger is induced, in the last analysis, by the exploitation of undefended market by the private citizens of one country operating in another.

104. Last but not the least of the dangers of private enterprise, fostered by the community by protective tariffs, specific financial subsidies, bounties, subventions, indirect help in the shape of discriminating transport rates, or still more indivisible contribution in the shape of public maintenance of research institutions, patent organisations and the like, lies in its becoming a close monopoly, open or concealed. Trusts, Syndicates, Cartels and Combines, are evolved to get the utmost price at home to enable them to fight more effectively their trade rivals abroad.

105. The complaint of corruption against public officials in charge of public enterprises,—whether Industries, Utilities or Services,—is no less applicable, and is of much longer standing against private profit-seeking individual conducting large scale operations in the corresponding fields. In the former case, the complaint has gathered force only in recent years, because of wartime decline in efficiency and integrity. But corruption under individualist management is old as the hills and pervades in every part of such enterprise.

106. It must also be remembered that such corruption is itself the child of the individualist system working for personal profit. So long as differences in income remain glaring by disproportionate, there would be great room for temptation. There

will be tempters as well. The more important position the tempted occupies, and the greater the ability of the tempter to offer temptation, the greater would also be the prevalence of such corruption. Only when the immense variations in wealth and income from individual to individual are abolished, and everyone assured a decent chance of civilised livelihood, there would be no occasion for offering or receiving bribe. The remedy against corruption increasing lies not in preventing the growth of public enterprise, but rather in abolishing private profit-seeking enterprise root and branch.

107. Of late, an increasing proportion of public officials are being employed on the eve of their retirement by private enterprise, on terms more attractive than in the public service, though less enduring. This is an offence against public morale which the Penal Codes of capitalist countries do not recognise as such, but which must be exposed as only a tortuous device of the private profiteer to secure the best help and counsel for realising his nefarious aim of robbing the public. Whether it is to evade tax dues, or to secure special concessions, or utilise the influence or ingenuity of such officials, the employment of any such officials by private enterprise must not only be prohibited, it must be made a penal offence, involving forfeiture of pension rights, and even liability to prosecution. It is, indeed, no compliment that private capitalists have learnt the corruptive possibility of public officials. It is rather an invitation to more effective corruption against which the Community cannot take too strong measures.

108. The charge of inefficiency likely to result from the lack of personal management and supervision, alleged to be the characteristic of public enterprise, has as little validity. Inefficiency is no monopoly of public officials in industrial enterprise. Private enterprise suffers from it no less. Whenever the latter is concerned with very large operations, its management becomes equally impersonal, and is consequently exposed to inefficiency just as much as public enterprise.

109. There may, moreover, be good reasons such as there were in Russia in the first stages of her Planned Development, or such as are found in many a Capitalist country under the excuse of post-war relaxation, which may quite satisfactorily explain the prevailing inefficiency. These reasons are not of the creation, or under the control, of the officials concerned ; and so they exclusively cannot be blamed.

110. In any case, all important Industries, particularly those relating to Defence essential goods and Services, or Public Utilities, and those concerned with Key or Parent Industries, must not be left in private hands. Other Industries, which may appear to be of less vital importance to the very existence of the country, will also have to be brought under an increasing measure of public control, if not complete ownership or management by the State, which will offer some guarantee for these remaining an integral part of a well-conceived Plan.

111. My colleagues hold that nationalisation may be considered for certain essential industries, if adequate private capital is not forthcoming for the purpose. Their considered opinion, however, is :—

> "If at the present juncture, the State attempted to take into its own hands the ownership and management of a large range of industries, the industrial development of the country might not be very rapid. Nevertheless, it seems to us that it should be our policy to bring under State ownership and management some at least of the basic industries of the country, and that the execution of such a policy should form part of our Plans. We recommend, therefore, that apart from Defence Industries, and any industry or branch of any industry which it might be found desirable to start as a state enterprise through the reluctance of private capital to undertake it, the nationalisation of the following should be considered ."

112. Here is a radical difference of view point and conviction which it is impossible to conceal by any formula of verbal compromise. For my part, I have no doubt about the rapid industrialisation of the country being promoted, rather than

retarded, by a policy of planned, intensive, universal socialisation. I would not confine the programme of nationalisation to "basic industries" or Defence industries only; but extend the regime to every item in the field of production. Nor would I wait upon the readiness of private capital to take up any industry. Without public ownership, national control of industry would be nominal—if even that, and without effective and rigid control of all productive enterprise, the success of any planned programme will be illusory.

113. The case for socialisation does not rest on these negative considerations only. The positive reasons for nationalising Industries and all other productive enterprises may be summed up as follows :—

(a) Under nationalised ownership and management, there would be better co-ordination and greater economy in working the Industries.

(b) The distribution or diffusion of all Industries throughout the country so as to facilitate the fullest employment of local labour and utilisation of local material resources of every region will be very much easier and more real.

(c) The surplus or profit from such nationalised enterprise will be available for the use of the public treasury and so provide ever expanding financial resources which tax resources cannot provide.

(d) The operation of the nationalised Industries, Services or Utilities will be primarily to render service or assistance to the national economy as a whole, and not for making profit for the owner, as would inevitably be the case under private enterprise.

(e) Only under socialised production will be the fullest possible employment to all adult workers, in accordance with the aptitude and training of each, be secured.

114. It must be added that the terms 'nationalisation' and 'Socialisation' are used here as almost synonymous, and apply to all enterprises conducted by any public authority, whether Central Government, Provincial or State Government, Municipal or other Local Government, or a statutory Corporation. The essence lies not in the constitutional status and character of the authority conducting it, but in the complete elimination of the principle of private ownership, and individual profit.

115. The term 'Industries' is here used in the widest sense including all forms of producing new Wealth. Thus conceived, policy of socialisation would apply as much to Agriculture as to Industry narrowly so called ; to Services as well as Utilities. In the Industrial sector, narrowly so called, it would apply to all Industries,—whether large scale or small scale. The former, however, would admit of a much more effective organisation and economic working. Wherever possible, therefore, mechanised operation and standardised production on a large-scale should be substituted for small scale artisans.

116. At the same time, it must also be recognised that, if Socialisation is adopted as a policy, it must be applied universally to all parts of the national economy, if it is to be a real success. Any restriction of the field of Socialisation, any exclusion from it of any section of the productive or distribution organisations, would mean very much less chance for a socialised plan to attain full fruition. For, wherever there is scope left for private enterprise and working on the profit motive, it would try to secure for itself the most profitable branches of productive organisation, leaving to the community collectively those which are non-productive or burdensome. For socialised economy to prove a success, items in the National economy, which must be operated as Social Services or Public Utilities intended to provide the greatest benefit to the masses as a whole, must be balanced by other items which would not be a net loss, but would bring in a net surplus to the community. This gain would then be used to make up for the deficit on that other sector which is worked for Services or benefit to the community, and not for profit to the State.

117. The problem of National economy must, in other words, be considered as an aggregate, and not as in several distinct compartments. It is only then that the advantages in some may be set off against the disadvantages in others. And that is the essence of the planned development wherein all items and aspects are carefully co-ordinated *inter se* and worked collectively for common ends or predetermined goals.

118. I come, finally, to the question of the procedure whereby appropriate and adequate machinery for carrying out the Plan may be set up. At the commencement of the second series of the Plenary Sessions of the Board, reasons have been elaborated in a note to show that establishment of this agency or machinery by means of legislation would be a much more suitable and satisfactory course. Let that Note* speak for itself. The Chart of the Machinery in all its several parts when in full working order, appended to that Note, will go, it is to be hoped, a long way to make clear the meaning and purpose of this machinery.

SECTION C

Administrative organisation for carrying out the Plan

Nature and Purpose of the Machinery.—The kind of Machinery designed to give effect to the Plan will depend largely upon the nature of the Plan, and the objectives it seeks to attain.

An ordinary Department of Government, with specified functions, frequently changing because of the exigencies of ministerial responsibility and frequent regrouping of functions, will not be quite appropriate for carrying out a comprehensive National Plan, as the inevitable restrictions by codes of regulations, and the red tape inescapable from departmental working, would only make the Plan cumbrous, dilatory, and often defeat the principal purpose of a Plan.

A new type of machinery must, therefore, be devised, so as not only to facilitate the taking of decisions quickly but also the execution of these decisions. This would, of course, be possible only in so far as the Machinery is vested with executive powers to be both expeditious and effective.

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Planning, again, by its very nature is a continuous process, notwithstanding periodical limits attached. These periods are mere stages, intended to help in gauging the progress of the Plan in execution from stage to stage and from time to time.

No Plan is final or could be rigid. Every Plan, moreover, if it is well conceived and properly given effect to, would set up conditions or reactions, and create circumstances, which will call for new adjustments that must be automatically and immediately forthcoming if the Plan is to go on smoothly. The necessity, therefore, to change, and adopt the working of the Machinery to the changing conditions developing under the Plan will also require that the Machinery should be such as not to involve needless waste of time by references and counter references to superior authorities or co-equal departments.

Another point to be remembered in devising this Machinery is that the administrative system and organisation, set up for carrying out the Plan, would necessarily have to be in accordance with the Constitution that may be in operation in the country and every part thereof when the Plan comes into operation. The Constitution of India is today on the eve of radical change. The basic principles of that change are universally agreed to. The Machinery must consequently be in full accord with the impending changes.

Whatever the changes, the administrative or executive arrangements must also conform to the nature and objective of the Plan, if it is not to prove utterly unsuitable and ineffective.

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* The Note referred to is reproduced as Section C of this note.

The Constitutional limitations and handicaps or conditions, under which the Planning Machinery will have to function, are considered briefly in another section of this Note. Here it is important to note the nature and purpose of the Plan to attain which the Machinery has to be designed.

Assuming that the Plan is a National Plan, intended to attain, within a specified period, a definite goal in all Departments of national life, both material and cultural, the administrative organisation must be such as to attain these objectives on a nation wide scale and in a comprehensive manner, consistently with the Constitution of the Country. It is not to be supposed that because the Plan is for a definite period that when the period ends the Plan is either automatically completed or ended. Planning is a continuous process which goes on developing and unfolding itself from stage to stage. With changing conditions or reactions, special emphasis on particular aspects or items in the Plan may vary from time to time; but the main objective remaining throughout undisturbed. For each stage, moreover, of the fulfilment of the Plan, definite target or control figures will have to be laid down in advance, so that the progress or success of the Plan may be judged and measured in accordance therewith.

Planning, being a comprehensive process of all-round development throughout the country, will aim at :—

(*a*) Ensuring in every part of the country that all the resources of each such part or region, both material and human, are properly developed for primary as well as secondary goods, utilities and services ;

(*b*) Providing the fullest possible employment for all adult able-bodied workers within the country, whether in Agriculture, Industry, Mining, Forestry, Utilities, Services, Amenities, Trade and Professions, Defence and Administration of the country, in accordance with the capacity, training and aptitude of each such individual ;

(*c*) Achieving re-distribution of the population, which at present presses unduly heavily upon the soil, so as to bring about a balanced economy throughout the country, with a more equitable distribution between the various sources of production of new wealth as also the services and utilities, amenities and professions making up the totality of the country's life ;

(*d*) Bringing about a substantial re-distribution of the wealth, both material and non-material, of the country, so as to secure to each individual a pre-determined standard of life, meeting all his primary needs and comforts and ministering also to his cultural development side by side with peace and tranquillity.

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For this purpose the Planning Machinery would have to be so devised as not only to be a Central Governmental Organisation, controlling or co-ordinating the several parts and aspects of the Plan in the different parts of the country, but also carrying out such of the enterprises, Utilities or Services, as are directly within the competence of the Central Government.

In the former case the machinery must be so devised as to keep in line the various component parts of the Union, whether the States or Provinces, as well as the several items or aspects of the Plan considered as an integrated process to avoid any lopsided development which would emphasise the growth in one part at the expense of the other. The main function of this Central Organisation in this branch of its work, would be to advise or assist each component part in the endeavours it makes to give effect to all items and aspects of the Plan relating to it. There would be no direct action by the Central Authority.

For this purpose, in the Central Planning Organisation, it would be necessary to have a Central Advisory Council which may be charged with recommending the form and extent of the aid needed by each component unit to carry out its section of the Plan. In that Council will sit together the Officers or Nominees of the Centre and the Units to consider details of working and problems under the Main Plan. It must be complemented by similar machinery in the constituent parts of the Union where the Plan is being actually carried out.

As for the direct functions of the Central Government affected by the Plan, it would be necessary to set up for each such task, a branch of the Central Organisation, so arranged to mutually co-operate without the least delay or obstruction. The several bodies or authorities in the main executive machinery set up to carry out each particular service, utility, or enterprise, may differ *inter se*, as each would be appropriate to that Service, Utility or Enterprise.

In this executive sphere, moreover, the several facts of the Plan, in each of those Enterprises, Utilities, or Services, such as Capital or Finance, Labour, both skilled and unskilled, distribution of the products or services through adequate transport and marketing, and ensuring adequate consumption by suitable shopkeeping service and price control, will have to be organised as Sub-Branches of the same.

In each component part of the Union, again, there will have to be a corresponding authority or organisation, for giving effect to the Plan for each such unit. This would be, on the local scale of each region, State, or Province, as the case may be a replica of the main machinery at the Centre, directly executive in so far as any enterprise, Service or Utility is that Unit Government's concern; and controlling supervising and aiding every such Enterprise, Utility or Service, being part of the Plan, which is conducted by some local governing body like a Municipality, Statutory Corporation, Joint Stock Company, partnership firm or individual. The actual or administrative organisation in each Province should be, as far as practicable, in conformity with the Central Machinery and corresponding to it. Proforma detail are worked out below including the conditions on which Central assistance or advice may be given; and the limits within which this advice must be given effect to.

Where special statutory authorities or corporations are set up to operate any enterprise, service or utility—as a Trust or Syndicate—it will function under appropriate Central, Provincial, States or Local Governing body in accordance with the extent of its jurisdiction, or the nature of its functions.

II

Constitutional Limitations and Handicaps

The task of Planning in a Democracy is necessarily different from the corresponding task in a Totalitarian State under a Dictatorship. In a Totalitarian State with dictatorial authority, the entire Plan would be in response to the will of one person as advised by his chosen experts, and the Machinery devised to carry out that Plan would be in conformity. In all Democracies, on the other hand, the Plan, its basic policy, and administrative policy, will have to be considered and approved by the Representatives of the people with an inevitable balancing of a variety of interests and sections which are bound to be effected thereby. The resultant organisation would, therefore, have to be such as to secure due regard to all the interests, sections and regions of the country affected by the Plan, its policy and executive machinery.

In a Democracy, not only must the main Plan, in all its aspects as well as objectives be previously approved, and its governing policy laid down by the representatives of the people, but the legislation relating thereto will have to be enacted by the Representatives of the people. By this procedure, behind each part of the Plan and its basic policy, there would be the full force of the sovereign authority of the country.

This task is further complicated and made more difficult in a Federal Democracy with distinct division of Sovereign Authority between the component parts and the Union.

The Constitution of India, as now envisaged, will have restrictions and limitations on the Central or Union Government. It would make the task of formulating and carrying out a National Plan fundamentally different from that in Soviet Russia, Nazi Germany, or Fascist Italy, or even in England or America under the stress of War.

India, having accepted the principle of a Federal Democracy for its Constitution, with a clear cut division of Governmental functions,—probably with Representative Ministry on the British or French model, —must needs conform, in policy and objective of a National Plan, to the largest volume of vocal opinion within the country.

The country, moreover, consists of a number of Provinces and Backward, Excluded and Tribal Areas, and a much larger number of States. Each of these has a varying degree of local autonomy which will not all be ironed out into a single homogeneous pattern all at once under the Constitution now in the making. The formulation, therefore, and execution of a National Plan becomes more complicated and difficult than in any other country of like size, population or potentialities.

It is possible to found the Plan upon the existing Constitution, wherein the Central Authority, at least in British India, still possesses a large degree of direct authority and function. It has an overriding power as regards the several Provinces, though the latter have a given measure of autonomy. So far, however, as the States are concerned, under the present Constitution the larger ones are independent Units for all purposes of their internal administration and governance. In the absence of a specific agreement to the contrary, it would be unwise to disturb the accepted principles of their local autonomy.

The obvious advantage of a National Plan for allround and simultaneous development of every part and resources of the country cannot but persuade these Units to make up by agreement what the fundamental constitution would not compel them to do.

That is to say, if the exigencies of a proper formulation and effective carrying out of a Plan so require, powers, functions, or authority may be entrusted to the Central Government, by specific agreement between the Centre and these Units, whether States or Provinces, which would be adequate or appropriate to the task of formulating a National Plan and giving effect to the same.

The War which first roused the powers that be to the necessity for a planned development in given directions, has familiarised the country as a whole with the system of controls, regulations, rationing, and such other aspects or items of a planned programme, which makes a good primary foundation for a more comprehensive and integrated National Plan. The formulation and working of such a Plan would only be a step forward in the same direction, which, without prejudice to the constitutional position, will nevertheless induce every Unit, State or Province to join in.

It would be unwise to work, however, on the basis of the existing Constitution, even though it is not known definitely when the changes now impending would come into operation. The fundamental principles of these changes have been accepted and agreed to by the principal Parties in the country. Without a manifest breach of trust, so to say, these basic ideas cannot be departed from, and the Plan framed despite them. We are, besides, not functioning in this country on a clean slate. However much, therefore, one may like, one cannot devise a Planning Machinery which would be ideal from the point of view of a Unitary State and its Universal National Plan applicable to the entire country, its people, and resources.

The underlying principle of the impending Constitution is to restrict the Central or Union Government to three definitely assigned functions with a clear condition that all those functions which are not specifically assigned to the Centre shall vest in or belong to the component parts of the Union.

It is possible to extend or amplify the three main functions entrusted to the Central Authority of the Union Government under the Cabinet Delegation's Statement. The inevitable implication or inescapable consequence of the principal functions may justify such amplification. Just as the necessary Finance for carrying out the three main functions has had to be entrusted to the Union Government; and just as the working out of the details of this financing may involve the recognition by the Units of implications and consequences not detailed yet, so also in carrying out such a very complex task as the Defence of the country under modern conditions of mechanised warfare, or the variety of communications or intricacies of Foreign Affairs, would lead to many unavoidable consequential or amplified duties or responsibilities charged to the Union Government that have yet to be amplified and made explicit. But that process will have to be by agreement, while making up the New Constitution; and not by the normal exercise of the powers of the Central Government as it functions under the existing Constitution.

This applies, in the first place, to what is called British India, but the principle would apply with still greater force, in view of their history, to the Indian States who have hitherto claimed or enjoyed local Independence and Autonomy to which the Provinces were naturally strangers for a long while. Ever since the establishment of the British Dominion in this country, however, the States have been brought more and more into line with the administrative system and the national economy of India, either by specific Treaty and Agreement, or in virtue of paramount power and authority of the British Crown in relation to the Indian States.

But in accordance with the Cabinet Delegation's Statement, Paramountcy is to cease and new arrangements will have to be negotiated for the States to join the rest of India and form a Union of the country as a whole. At that time a general Agreement should be made, or a new basis provided, for consultation, collaboration, coordination for the formulation as well as the actual carrying out of a National Plan. This would involve delegation of additional functions in the States just as much as in the Provinces of India, to the Union Government in connection with or for the purpose of a Plan.

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Such agreements would be all the more necessary, when it becomes a question of an express delegation of additional functions or authority to the Central Organisation.

This is not an impossible task. Not only has the country been accustomed to and familiarised with the need for co-ordinated action in the interests of winning the War, even after the War, and without its driving force, several Provinces have agreed to let the Centre organise what are called All India Services.

The obvious advantages of working on a nation-wide scale, for a country as large and as populous as India, are so vast and varied that it would not require much persuasion for the several component parts of the country, whether States or Provinces, willingly to agree to come into the Central Administrative Organisation for Planning. However rich any given Unit may be in primary resources for material development or cultural advance, its unaided potentiality would be much smaller than the country as a whole represented by the Union Government. The latter's internal as well as international credit and contacts with other countries, its information and outlook regarding the requirements and possibilities of all Units, are much greater than that of any Unit by itself or in combination. Its ability, therefore, to attain such an ambitious objective as National Self-Sufficiency would be correspondingly greater. The Units, of course, making up the Union, will necessarily share in this greater possibility, and, if need be, they could specifically provide in the Agreement for a just share of the realised advantages coming to each of them.

No Unit can by itself aim at self-sufficiency and achieve it in any remarkable degree. The fullest possible development of all the local resources, both material and human, and the most equitable and satisfactory redistribution of the new wealth produced in the country, could only be achieved with the help of the Central Authority. It would not be, therefore, in a Unit's own interest to keep outside the Union Administrative Machinery for the Plan and work independently of it.

For reasons less tangible than those of obvious material benefit, namely, adequate Defence of the country and every part thereof, it is also desirable to avoid undue concentration of Industry, Utilities, or Services in any given Unit or Units, however much such an Unit may have an initial start in the Programme of Development as compared to others. No Plan will be either accepted or prove really effective, if it does not secure to each component part the best chance for the fullest development of all its potentialities. For a properly balanced economy to be established throughout the country bringing the fullest possible employment of every able-bodied adult citizen in every part of the country, and the best return for his labour, it is necessary that Industry be diffused all over the country, and agriculture and allied sources of new production be relieved of the excessive pressure upon them, and employment be varied as well as diffused.

In the event of invasion by anyforeign aggressor or bombing of the industrial centres within the country, the more scattered and diffused such enterprises are the more widely located in every corner of the country,so to say, the easier it would be to guard against national disaster. For material as well as intangible considerations, therefore, it can be easily made evident to the component parts of the Union that the interests of each such part, as well as of the country as a whole, lie in preparing and working an all-round coordinated National Plan for comprehensive development registering simultaneous advance on every front. Necessarily, the administrative and executive Machinery must be suitable and appropriate.

The one guiding general principle for the Machinery needed to carry out the Plan, that may be laid down at this stage may be stated as follows :

The formulation of a Plan, or the prescribing of its fundamental policy in every phase and item of the Plan, should be in the hand of the Central or Union Government. This may be in virtue of explicit function or authority given to the Centre by the Constitution or in accordance with specific agreement between the Units and the Centre. The actual execution and administration of the Plan in all its several items should, on the other hand, be with the Units, singly or in groups.

For purposes of coordination, the advice and assistance of representative Boards or Councils will be needed at the Centre in each field. As these would be devised after due consultation with every Unit, and after taking into full account the needs and possibilities of each such Unit, there need be no difficulty in arriving at a clear agreement on such subjects.

For Functions directly entrusted to the Centre by the Cabinet Delegation's statement and the constitution to be based thereon, together with the inevitable corollaries by way of implications and consequences of these Functions, the Union Government will have to devise adequate executive and administrative machinery for each such function and its subsidiaries coming under the Plan. As and where necessary the Central Organisation in each such case will be complemented or supplemented in each Unit by a corresponding Organisation working directly under the Centre. This machinery need not be exclusively a Union arrangement, but the primary responsibility would be the Union's.

This work cannot be done by a single Department of Government, however considerable it might be in personnel, and whatever the number of its sections. For each group of functions there will have to be a distinct organisation, working on the Plan in its own section. It would consequently be under the general authority of the Central Planning Organisation, by whatever name it may be designated. In view of the composite character of the Functions, it would, perhaps, best be styled the National Planning Commission for India.

For each important Industry, Utility or Service, under Defence, Communications or Foreign Affairs,—the principal functions of the Union,—there will have to be a Central Board, Council or Statutory Corporation specifically charged with the organisation and conduct of that Industry, Utility or Service. If there are several establishments in any case, located in the different parts of the country, as provided by the main Plan, these may be welded together or co-ordinated into a National Trust or Syndicate keeping these various establishments into line as integral parts of the Plan.

It is unnecessary to give illustrations at this stage of the arrangement proposed above, since a detailed layout and ground-plan is given in the Appendix for the Organisation here conceived.

For its own part of the Plan, each component part of the Union, whether State, groups of States, or Province, must have its own jurisdiction, and all that is comprised therein. This would mean the setting up of similar trusts or Syndicates in each Unit also for the Industries conducted directly as Local Government Enterprises by the Unit Government, or the Self-Governing Bodies thereunder, or any Statutory Corporation established by the Unit Legislation.

Representative Boards or Councils may also be set up for all those other activities forming part of the Plan, which may be carried out either by the Local Governing Bodies as falling under the Constitution within their jurisdiction or by special Statutory Authorities, *e.g.*, Port Trusts, created for such purpose, or by Joint Stock concerns, or Partnership Firms, or by individuals.

The essence of the entire arrangements is, that no matter who owns and works any given industry, Activity, Utility or Service, it must be an integral part of the Plan. As such, it must conform to all the conditions and requirements of the main Plan in regard to Policy and be subject to the direction, control, supervision and co-ordination of the Central or Local Government as may be found appropriate in each case.

For certain Services, again, which may be local concerns, but which, nevertheless are of nation-wide importance, *e.g.*, local transport, Power Supply, Banking and Currency, Trade, whether internal or foreign, Insurance etc. a National Organisation, functioning both at the Centre and at the Units must be provided as part of the Plan. This must work in accordance with the basic policy laid down in the Plan or by the National Planning Authority. Thus there may be a National Transport Board, Insurance Commission, Banking Council etc.

Services and Utilities, again, like Water Power, Inland Navigation, University Education, and Research Institutions of the Highest Count, Roads and other means of local Communication should be worked under agreement as part of the Plan under the joint authority of the Centre and of the Unit in each case, so as to maintain uniform policy and co-ordinated operation of each such Service or enterprise, without prejudice to local autonomy or national integrity.

For purposes of Financial aid, fiscal protection, expert advice, etc. to any industrial or productive Enterprise, Utility, or Service, a Central National Machinery like that of a Tariff Board would be inevitable. This would be a permanent body entitled to act on its own initiative. It would investigate any claim for help, advice, assistance, protection, or encouragement, recommend the form in which such aid, assistance or protection should be given, and lay down the conditions on which such aid, etc. should be afforded. It would likewise be desirable to empower the same Authority to see that those conditions are duly enforced and fully carried out in every day practice.

An Inter Unit Commerce Commission, a National Road and River Board, a Union Electric Grid, a Central Council of Research for Industrial, Agricultural, Commercial or Financial matters, and other Machinery of the kind will have to be simultaneously instituted as an integral part of the entire Planning Machinery for the country as a whole and required to keep all parts and items of the Plan in step, so as to maintain an all round rate of progress as laid down in the basic plan.

Details of this Machinery and the ways and means of its institution are worked out more fully in subsequent sections.

III

Procedure to establish National Planning Machinery

There are three ways in which an adequate and efficient Administrative and Executive Machinery for carrying out the National Plan can be established :—

(*a*) By specific Legislation of the Union Government, not only as regards the Functions entrusted under the Constitution directly to the Union Government but also in accordance with Agreements expressly made for the purpose in the Units. Wherever the Constitution renders that course necessary, similar Legislation should also be reproduced in the various Units concerned

(*b*) By Executive Orders, setting up the Machinery, and obtaining an indirect sanction or approval of the Legislature by getting it to vote the necessary supplies.

(*c*) By the natural process of evolution, convention, or *ad hoc* agreement on each matter as and when it arises

The last may be the easiest but is the least desirable as it is not deliberate planning but haphazard growth. In these days when political consciousness among the people of their dues is growing fast and spreading far, the voter or his representative in the Legislature will naturally be jealous of the sovereign authority of the Supreme Law making Body of the Country, entitled exclusively to vote the funds necessary but not being properly consulted in such measures of constructive Development. Convention or usage might be possible where there has been already in existence some Machinery at work. In the present case, however, the purpose itself being new, and the idea of a nation-wide comprehensive Plan being still in its infancy, there are no traditions, customs, or precedents to guide us in working out appropriate conventions, or depending upon the normal growth of the factors actually at work.

Ruling out this means of evolving a Planning Administrative Machinery for the country as a whole, and in every component part of the Unions, the second alternative of Executive Order may be next considered. This is easier, less cumbrous, or dilatory than the Legislative method. The point, however, made already regarding the jealousy with which the voter or his representative in the Legislature view such actions of the Executive unconsidered previously by the Legislature, ought to be conclusive against any reliance on this method of providing suitable machinery both adequate and efficient for the comprehensive purpose in view

In a Democratic State, moreover, with Responsible Ministry, the Supreme Executive may not maintain continuity of policy in any identical form under the varying fortunes of Political Parties unless backed by organic legislation. For a Plan to yield satisfactory results on every side and in every part, however, continuity of policy is indispensable. We must, therefore, discard this alternative also of creating an appropriate machinery by executive decrees.

Finally, the evolution of a Machinery, by executive orders only, would appear to lack, in the ultimate analysis, that cachet of popular approval and sanction which would assure it not only of continuity of policy, but also sufficiency of funds over a given period. As already promised, Planning is a long term programme. The funds therefore, needed from time to time to give effect to the several items under the Plan, would be both considerable and continuous. Without suggesting that the Legislature, exclusively entitled to vote supplies, should abdicate the authority in this regard so far as the Planning Machinery is concerned, it may yet be that by clear convention or general consent, the funds needed for giving effect to the Plan should be available every year, in the same manner as the so called Consolidated Fund Services are provided for under the British Constitution. But this may not happen, if the machinery is a creation of Executive Orders only.

Eliminating these two, the only other means by which a suitable, adequate administrative as well as executive machinery can be set up for formulating and working a National Plan in all its items and aspects, phases and conditions, is by legislation. Such legislation, both at the Centre and at the Units, would necessarily involve very general issues of basic policy. It would, therefore, be desirable in the first place to put forward in the shape of a direct appeal to the people at the time of a General Election, and in the form of certain categoric propositions so as to secure the all-important sanction and approval of the real sovereign in a Democracy.

With this general sanction and approval by the sovereign people legislative proposals for an appropriate machinery must next be submitted to the Legislature.

It may be that there is general agreement on all sides in regard to the Plan in broad principle, but there may be differences in detail, or on particular aspects of the Plan, or in regard to given features of the general policy governing it. If the main objective is generally approved by the people the differences in regard to policy or any particular feature, item or aspect of the Plan may be provided for by compromise in specific Sections of the Legislature when it finally comes into being. But the first step would have been taken, namely, the seal of popular approval in general principle at the time of a General Election. Its implementation would follow in the form of legislative enactment by general consent in the Legislature.

The same would be true of the reproduction of such Legislation in each Unit, in so far as the authority, function or jurisdiction of that Unit is concerned as regard the plan as a whole, or that portion of it applying to any such Unit.

Where Central or Union Legislation is passed following specific agreement, the Agreements on each such piece of Union or Common Legislation would be based, in particular cases or given items or aspects of the Plan, on popular support and authority, for each such agreement would have been, negotiated in the first instance by representative of the Centre as well as the Units concerned. The Legislation following would be no more than giving precise effect to such negotiations.

The contents of such Legislation may next be considered in outline.

The main legislation should not only lay down the central idea that there should be a Nation-Wide Plan for all round development, but also the Machinery at the centre and in the Units designed to carry it out.

So far as the formulation of the Plan itself is concerned, the Legislation may either include Schedules or Appendices giving details of the several sections in which the Plan is framed, as well as the control figures, prescribed targets, or measured rate of progress in each case. These may change from time to time according to the circumstances and exigencies of the moment.

The Law, however, would only enunciate the principle of there being specific targets or control figures. It will leave a margin of discretionary authority to the Supreme Executive, charged with the responsibility for giving effect to the Plan, to permit variations from the predetermined forms of progress or development on condition that the same be reported to the Legislature, together with such explanation as may be deemed proper and relevant to account for the variations. On this report such action may be taken by the Body or Authority in the legislature concerned as may be deemed necessary and sufficient for guarding against such variation

The actual form and working of the Machinery will constitute the next important section of this Legislation. A central Department or Authority, called the National Planning Commission, or any other title that may be found appropriate must be set up at the Centre. It will have several branches or sections with subsidiaries in each including Trusts, Syndicates, Commissions, Statutory Corporations, and the like. The function of each subordinate Authority, Body or Corporation must likewise be prescribed in this section of the Legislation to avoid conflict between co-ordinate bodies, eliminate overlapping jurisdiction and to minimise red tape.

A *Pro Forma* List of the specific Bodies, Authorities or Corporations, that would be necessary in each item or section of the Plan, is given in the Appendix.

As such Legislation will be reproduced in all essential particulars in the Units the Organisation would be fully balanced and will have universal effect throughout the Country.

Another section of the Legislation may include provision for securing duly qualified personnel with authority to make rules for their discipline etc. and correlating such activities as are part of the Main Plan.

The legislation may also provide for adequate finance to give effect to the Plan. As premised elsewhere, Planning is a continuous process. Its administrative Machinery will, therefore, have to be flexible, so as to adapt itself from time to time to changing conditions and circumstances. Many of these will be set up by the actual carrying out of the Plan itself. But the Machinery cannot be revised or reconditioned every time a given change occurs or an unexpected development takes place. From the very start it must be devised so as to be capable of meeting and adjusting itself to these changes.

It is unnecessary to say whether such Legislation will be for a given period or permanent. The Plan itself may, no doubt, be for a definite term of years, but that is merely a stage marked in advance in the continuous process of all round development in accordance with a Central Plan. It should not affect the basic Legislation which lays down the Plan and provides the Machinery needed to carry it out.

If and when it should become necessary to revise or amend the Legislation, the same Authority which passed the first act would be competent to revise, amend or alter it and make it more suitable or appropriate to the new conditions.

SECTION IV

Structure of the Planning Machinery

Let us next consider the form and structure of the Administrative and Executive Machinery designed to give effect to the Plan.

The Machinery may be divided into two principal parts :—

1. Concerned with the formulation of the Plan, and

2. Concerned with the Administrative or Executive side proper.

1. On the formulative side, initially, the ground would have been prepared by some such Body as the National Planning Committee, or its more official continuation like Advisory Planning Board or the National Planning Commission that may be hereafter appointed. The Plan thus prepared would necessarily be, in broad outline, though it would inevitably concern every section and department of the country's life both material and cultural.

The outline Plan, however, would need details to be filled in every case and every particular ; and this can be done by Experts working in the several Branches, each on his own, or in consultation at the Centre as well as in the Units as the case may be .

When these details have been filled in, and a complete Blue Print prepared,—complete in all items, aspects, stages, specifications and requirements for each Enterprise, Utility or Service,—it should be reported to the Legislature, together with a demand for grant of funds estimated as required for carrying out the Plan. This would provide a second occasion for the Legislature to give its reaction on the subject .

The formulative process, however, is not finally ended when this Blue Print has been prepared, approved and financially sanctioned and provided for.

By the very nature of a Plan functioning in a living society, there must be a constant change and development which cannot but affect more than one part of the Plan. Due note must be taken of such change and growth ; and the parts of the Plan affected must be adjusted from time to time even within the period described as the first stage of the plan, so that the original Plan should not get out of joint because of these developments.

This part, therefore, of the Planning Machinery will take care of the new conditions and circumstances affecting the Plan as a whole and include the same so as to integrate them with the Main Plan and adjust or adapt the Machinery to the required purpose.

New developments in science or technique may also render necessary alterations and amendments in the Plan, which must also be the concern of this part of the Machinery to take account of. They must be given effect to without fundamentally disturbing the Main Plan.

Finally this part of the Machinery which may be styled as the Planning, Research, and Formulation Section, will function mainly at the Centre. But it must have its counter part and prototypes in the Units, so that every local peculiarity development or reaction, initially not fully taken into account, may be properly dealt with. Any unexpected occurrence or special emergency may likewise be attended to as much as the change and developments of a more generic and abiding character mentioned above.

On the Administrative side proper, the National Planning Commission will have a much larger part dealing with every one of the Enterprises, Services, and Utilities, Institutions or Concerns which are comprised in the principal functions of the Union Government. Others, which are primarily the concern of the component parts of the Union but which have to be worked in consultation and coordination with the Union and other component parts, so that the entire Plan may function simultaneously in every part of the country operating as a carefully integrated enterprise, would also come under this Part of the machinery for consultation, coordination, advice or assistance.

In the Units, therefore, this part of the Machinery will have to be reproduced under appropriate nomenclature so that the local side may be equally attended to.

This section of the administrative organisation should be established by Local Legislation if so deemed necessary. In general, however, common Central Legislation ought to suffice in regard both to the functions immediately entrusted to the Central Government, as well as those others which are primarily the concern of the Units, but which are, by agreement, accepted for purposes of the planned development of the country to be legislated for by the Union in accordance with the terms of the agreement. This would solve the grave constitutional difficulty of reconciling the utmost possible local autonomy with no less urgent need for national integrity and administrative efficiency, with special reference to the Planned Programme of Development.

In regard to each of the functions coming within the jurisdiction and authority of the Union Government, there would have to be a large number of industrial enterprises not all of them concentrated in one place. There will also be Utilities and Services, working in all the several parts of the country as well as at the Centre.

Defence, the most important of the Functions entrusted under the impending Constitution to the Union Government, is a highly composite service. Under modern conditions it would necessarily comprise a large number of industrial enterprises with numerous establishments in each such industry scattered all over the land as well as what are called Public Utilities and Services. In a totalitarian War, such as the one just witnessed, the Defence also must be totalitarian. There is, strictly speaking, no part or activity of the people's life which cannot be connected in some way with the requirements of the National Defence or which would not have to be pressed into services if adequate provision is to be made on this account.

This is a very wide connotation, by no means unjustified, of the requirements of organised national defence for a country like India. Even if we limit the term to the absolutely minimum armament or equipment for modern defence, large numbers of industries will have to be brought under this section and worked as part of the integral National Plan.

The mobilisation of man-power to provide for adequate National Defence by land, air, or sea, is likewise a part of the National Plan. It includes also what may be called human side or the Labour Problem of the country in general and, as such, it would need special attention as part of the Plan and its administrative Machinery.

The Labour section would indeed be among the most considerable of the Machinery in a democratic State.

The Industries, Utilities and Services, coming under modern conditions will, without undue latitude, include industries, Utilities and Services which have also their significance in normal peace-time. In many cases in this group there are already established vested interests of private individuals, both Indian and outsiders which will need to be taken over with or without such compensation as may be deemed and equitable. But in no case there should be a trace of private profit in these. No room must be left for absolutely free, competitive, individualistic enterprise seeking profit for the proprietor, even at the cost of the community as a whole if need be.

Central control, supervision and regulation must be exercised by constant inspection and suggestion in cases where direct State Enterprise is for any reason deemed not proper, at least for the time being. This must be laid down as the *sine qua non* for allowing any such industrial Enterprise, Utility or Service to remain in private hands, as being only remotely or indirectly concerned with the organisation of National Defence. The other large group of Union functions is styled communications. If we take this to include Transport also, together with the industries providing the vehicles and equipment, this function would include a large number of industries. Even apart from the various forms of Transport Service—by Road, Rail, River or Sea—the industries and Services falling under Communications will make a most respectable list. The Post Office is a composite term, including a host of Services each of which would require, for its proper equipment and operation, a considerable number of industrial enterprise. These also must be owned, manned and worked as National Concerns or Public Utilities by the Union Government.

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In general, however, it would be best to organise each Enterprise, Utility, or Service coming under the Union functions as a Public Trust or National Syndicate for the whole country, with authority to work in every part thereof.

Each such Trust or Syndicate may comprise a number of establishments scattered throughout the country. The local or immediate management of each of these must be vested in the Managers appointed in each such case. But every such management must function as part of the Main Plan and in accordance with the general policy affecting the concern laid down by the Central Board of Directors for each such Trust. The Trust, in its turn, will have to conform to the policy laid down in the Basic Plan as provided for in an Act of the Legislature.

Should any item in these be operating in any Unit independently of the main structure, *e.g.*, a Non-Ferrous Metals Works, or an Automobile Plant, or an Aircraft Factory, it must needs be brought under the main system and conform to its common policy.

On the personnel side, at the head of the entire Machinery, there would have to be a Director General of National Planning. He would be the Chief Executive Officer responsible for the entire administrative system and execution of the Plan. All parts, sections, Trusts, Syndicates and management will be under him, as also all controllers, Inspectors, Auditors and Advisers, as well as Directors.

It would be inadvisable to make this office a political prize for a member of the Party in Power, as it requires a continuity of policy and specialised experience which politicians ordinarily do not possess.

In view of the importance of Planning as a National Enterprise, it may be as well to keep this organisation directly under the Cabinet or the Government as a whole, and not make it the responsibility of any single Minister.

This, however, is a matter of detail which may be settled as found convenient under the new Constitution when it comes into operation.

Whether or not the Director General is himself responsible to the Government as a whole, or the responsibility on the political side for the proper functioning of the administrative machinery is entrusted to a Member of the Cabinet for each section or item coming under the Union functions, and forming part of the entire National Plan, there must be a separate Directorate for each enterprise, Utility or Service, organised as a national concern under the Plan and be presided over by a Chief Director and governed by a Board of Directors.

The Chief Directors of the several items, Enterprises, Utilities, or Services comprised in the Plan should form a general Council of Direction under the presidentship of the Director General of Planning to consider problems of policy arising from the execution of the Plan. It would be desirable to leave details of administration in each case to the Director or Directors concerned, or even to the Manager of the particular establishment whom that detail concerns.

In the Provincial Section of this part of the Plan, there may be Deputy Directors for each such Enterprise. The Deputy Director must be vested on the unit scale with same powers, functions and authority and charged with the same duties and responsibilities as the Director.

The Directors or Deputy Directors will be concerned with the general direction and basic policy in relation to each Enterprise, Utility or Service placed in their charge.

The Directorates will have to be assisted on the financial as well as the technical side, by technical experts conversant with the financial and technical needs of each such Enterprise, Utility or Service. Such experts may be permanent, whole-time Public Servants, or *ad hoc* consultants, remunerated by lump-sums on each occasion.

Within each Trust or Syndicate or Committee of control, the advisory or expert technicians should also form part of the Directorate, with frequent consultation with their Provincial counterparts of the same.

Though the overall finance of the Plan would be included and provided for by a direct itemised grant by the Legislature incorporated in the National Budget, the Finance Department should have some say in the expenditure as well as receipts from the operations under the Plan, *i. e.*, from the Enterprises or Services. The Accountant and Auditor General under the Finance Department will likewise be interested and concerned in the account side of each such activity.

For purposes of control, supervision, regulation, inspection and the like overall private Enterprises, coming within the scope of the Plan under this section, there will also have to be appointed auditing, controlling and inspecting officers. There must be clear codes of regulations to guide them in the discharge of their respective duties. They should be attached to each Directorate separately. So long as private enterprise remains in any part of the Plan, there will have to be an adequate and highly qualified Inspectorate as such personnel will have to discharge responsibilities and important duties with the utmost efficiency.

The foregoing outline of administrative machinery has been sketched with reference mainly to the Central or Union Government. It must be reproduced, *mutatis mutandis* in every unit so as to complement the central machinery in all essential particulars. It would be needless repetition to add an outline of this machinery, with reference to a Province, or a State, or group of States.

The other semi-independent sections of the administrative structure may also be mentioned in this connection.

(*a*) Every Industry, *Enterprise, Productive Organisation,* Social Service, or **Public** *Utility*, forming part of the Plan, would require some sort of State aid or assistance, without which it may not be able to make good. Considering that this country has lagged far behind in modern industry, science, technique, and mechanical equipment, each venture in any relatively new field in this country would be exposed to the danger of utter failure because of foreign competition from more advanced or developed countries, if there is no support or assistance to indigenous enterprise by the Government of the country. This is the only explanation of the continued industrial backwardness of India comparatively speaking, notwithstanding great natural resources, *viz.* the indifference if not antagonism of the British Government in India towards the fullest possible development of the natural resources of this country.

To eliminate this handicap, it would be necessary to include even in planned economy, a section which would investigate every claim for such assistance, and recommend to Government the form and extent to which the assistance may most fruitfully be accorded.

The country is already familiar with an agency like the Tariff Board, which would serve this purpose if properly modernised. It had hitherto been instituted as an *ad hoc* body, charged with the consideration of specific claims for protection or assistance to a given industry. For the Organisation to be really effective, and follow a continuous line of policy, it is necessary to make it a permanent item in the administrative structure of the Plan.

The Tariff Board, or whatever corresponds to it under planned economy, and however it is styled, should not be confined only to the investigation of the case of any specific Industry, Utility or Service, nor should it be required to act only on the initiative of those concerned with the Industry etc. It must be able to move of its own accord, and should be entitled to recommend any form of public assistance, which, after full investigation of all relevant factors, seems adequate and appropriate in its judgement.

The several forms of State Aid to industry, which have been used with varying success in other countries in their programme of industrial development. may be summarised as follows :—

(*a*) Fiscal protection, in the shape of protective duties on goods imported from abroad which could also be made at home, but not at a competitive cost without such assistance ; or export duties to secure adequate quantity of cheap raw material, coal etc.

(*b*) Direct Financial aid in the shape of Bounties, Subsidies, or Subventions calculated and awarded on a prescribed basis ;

(*c*) Assistance in securing the necessary Capital by taking shares, or guaranteeing interest or dividend on the share capital under stated conditions and circumstances and for a given period ;

(*d*) Providing skilled labour and expert advice, by importing if and when necessary foreign experts and technicians to help in setting up and demonstrate the working of any such Enterprise in the first instance ;

(*e*) Collecting, compiling, interpreting and supplying information periodically relating to each such Industry, Utility, or Service, whether from within the country or from abroad in the shape of statistics, fiscal regulation, trade treaties, and the like ;

(*f*) Maintaining educational, training, and research institutions at public cost for preparing workers skilled in technique and the scientific basis of each such Industry, Enterprise, Utility or Service.

(*g*) Negotiating and making appropriate Trade Agreements with foreign countries, so as to secure the necessary raw materials, mechanical equipment, market or any other requirement or facility for the successful building up and working of any such enterprise etc. ;

(*h*) Granting exemption from taxation for a time ;

(*i*) Giving economic railway rates and freights, or transport charges and advertising facilities so as to economise in the cost of production ;

(*j*) Organising and regulating central markets, and arranging for storage, grading, standardising, etc. of the commodities entering into trade ;

(*k*) Passing suitable Legislation to facilitate proper industrial organisation in the form of Joint Stock Corporation, Co-operative Society, or Collectivised Organisation with adequate safeguards for Patent Rights, Merchandise marks and the like ;

(*l*) Allowing concessions in respect of free land for sites, etc.

These are some of the most prominent forms in which State aid can be given. It may be that a single organisation may not prove equal to deal with all these forms of State assistance, judge the adequacy and appropriateness of the aid granted in every single case, and recommend a proper measure to the Government for the continuation of such assistance. This is no great difficulty, for such an organisation, once established, will be entitled to ask for and receive expert advice and guidance in each such matter.

The Organisation must, however, be one functioning at the Centre, but available for consultation and advice to any Unit where a given industrial enterprise, utility or service needing such aid is situated.

In so far as any Industry, Enterprise, Service, or Utility seeking public aid in any of the forms mentioned above is in private hands, definite conditions will have to be laid down so that the private proprietors of such Enterprise, etc. do not make profit for themselves at the expense of the community as a whole.

For instance, no Industry or Enterprise, receiving public aid in any form, should be allowed to make and distribute profit amongst its Proprietors exceeding a certain percentage on the capital at work, say, 6%.

Another condition of the grant or asistance may be that no such Enterprise would be allowed to organise or form part of a virtual monopoly whether formally so described or not ; nor should it form part of a world cartel or Syndicate constituting a monopoly.

A third condition may be that its accounts and all other operations should be open to inspection and audit by qualified officers deputed by the Central Organisation. Any criticisms or suggestions made as a result of such inspection or audit must be immediately attended to.

Other conditions of this kind may also be laid down. But the chief consideration is that public assistance cannot be rendered to private enterprise, working for individual profit, without some condition so as to ensure its working also for public benefit as a whole, and as part of the Plan.

This body, whether called the Tariff Board, or advisory Council for State aid to Industry, or any other appropriate designation, may be part of the general administrative machinery set up for carrying out the Plan. Even if it is an independent body it must be under constant contact with the Planning Organisation and act in concert with it.

The most effective Planning would, of course, be under a wholly socialised economy, eliminating completely any private enterprise in any field. Given, however, the conditions of India at the present, it seems unlikely that wholly socialised economy would be accepted by public opinion in the National Legislature. It is therefore, necessary to suffer some sector of our National Economy to remain in private hands, which would need some form of public assistance to make each item coming under it a success. The success of items in this group will, no doubt, be judged on a commercial basis, namely making a net profit, or surplus of money return over money costs. This is not a just criterion; but even so, the aided enterprise must be part of the Plan, and work in consonance therewith.

In addition to the Council of State Aid to Industry, there would also have to be another body concerned with organising and conducting or supervising and collating scientific research, mechanical improvements, and technological development. Ordinarily this work would be conducted in the Educational and Training Institutions, the Universities with their Research Departments. But these bodies, however, have been accustomed to function as independent units, more or less isolated from one another. There is no co-operation or co-ordination in the Scientific Research; nor is that Research directed to any specific objective. It must be, therefore, the function of the Planning Machinery to see that the bulk of Scientific Research and Technical Advance is properly co-ordinated and made to function for pre-determined objectives.

This aim may be achieved by central supervision and general control over the Universities whose local autonomy must, of course, remain unaffected.

In addition to the ordinary or statutory Universities, there may be other Central arrangements for scientific research and technological developments in National Institutions specialising in particular fields, *e.g.* the Institute of Sugar Technology at Cawnpore, the Iron and Steel Research Laboratory at Jamshedpur, the Lac Research Institute at Ranchi, the Indian Institute of Science, Bangalore and the like.

Means have already been devised for initiating research by specific grants to research workers on prescribed problems. These may be developed further so as to co-ordinate and regulate research and focus it to attain pre-determined purpose.

These two sections may form part of the general Planning Machinery, or stand by themselves; but however set up, they must remain in constant contact and co-operation with the Planning Machinery.

A third Department of this kind is also necessary for purposes of regulating prices in general and the commerce of the country both as between the Units, and with foreign countries.

Exchange of commodities and services, or Trade is as integral a part of National Economy as Production and Distribution or Consumption of the wealth produced. Hence any Plan which claims to be comprehensive must pay due attention to this sector of the National Economy. This may operate as or through:

(*a*) An Inter Unit Commerce Institute charged with specific functions for regulating the trade between the units, including organisation of markets, or Exchanges grading and storing and movement of commodities, weights and measures, credit and foreign Exchange.

The internal trade of the country would be primarily the concern of the Units and not so much of the Centre. But it would function most effectively only if it is organised by agreement as a National Institution. It is not absolutely necessary that this Body should be a section of the Planning Machinery, but like the preceding it would be most serviceable only if it operates in constant contact and co-operation with that Machinery.

(*b*) As for Foreign Trade a separate National Syndicate, having a monopoly of this Trade, or at least complete control over the foreign trade of the country, including all commodities and services, as well as all countries with which such trade is conducted. The Services will include Shipping and road or rail transport, Insurance and Foreign Exchange facilities, or banking credits.

Even though the National Plan aims at National Self Sufficiency, foreign trade will not be excluded. The International Commerce Commission, Council or Syndicate will thus be of the utmost importance in the Planning Organisation as a whole. Foreign Trade particularly is fraught with the greatest possibility to undo the whole work of Planning, if it is not controlled at the source to function in harmony with the Plan, and help to promote its accomplishment.

(c) As part of the preceding, and as a kind of a link between the several parts of the Planned Economy, there must be a Council or Board to regulate Prices, both internal and for purposes of foreign trade. Price Control is also no longer an unusual or even unwelcome phenomenon in modern society; and so an appropriate mechanism for that purpose needs only to be expanded in order to be fruitful.

With these adjuncts the Administrative Machinery would be more or less complete and would serve to realise the Plan in all its parts and aspects. If at any point it shows a *lacuna*, experience will indicate the best method of filling it in and making the Machinery complete and sufficient.

The Organisation sketched above is set out in a schematic form in the *appendix.

K. T. SHAH.

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*In the pocket at the end

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APPENDICES

Appendix 1

SUMMARY OF THE FIVE-YEAR PLANS

GENERAL INTRODUCTION

An attempt is made in the following pages to review within a small compass all the planning done by the Central and Provincial Governments so that by an hours reading and the study of a few statements a conspectus of the whole field may be obtained.

2. This review is meant to be no more than an orderly factual summary. There is little or nothing in it by way of comment or criticism.

Classes of plans

3. Though all plans are more or less interrelated, it is possible for practical purposes to distinguish between (1) Provincial Plans, (2) Plans of the Departments of the Central Government, (3) Plans for major industries, and (4) Plans of Indian States.

This summary is divided into three parts corresponding to the first three classes of plans noted above ; but these divisions have not always been rigidly adhered to. Thus in the case of Road, Irrigation and Electrical development all plans, both Central and Provincial, have been treated together in Part I.

No separate section has been devoted to the plans of Indian States as insufficient data is available ; but in order to make the picture as complete as possible occasional references have been made to development in States where the relevant information is readily available.

Finance

4 A word may be said here regarding finance ; and this may also serve as introduction to the general scale and scope of these plans.

In the early stages of planning it was very roughly estimated that during the first post-war quinquennium (which at that time has expected to begin about the year 1947) the Centre would be able to provide for development work approximately Rs. 1,000 crores. Of this it was assumed, again very provisionally, that Rs. 500 crores would be derived from revenue surpluses and Rs. 500 crores from loans.

Provincial Governments were informed that they could look to the Centre for assistance in raising loans and that they might expect to receive from the Centre by way of grants for development from ½ to 2/3 of the assumed Central revenue surpluses of Rs. 500 crores. They were also asked to make estimates of their own resources. Their provisional estimates—which again were little more than guesses—suggested that over the whole quinquennium provincial revenue surpluses might amount in all to nearly Rs. 200 crores.

Thus total financial resources, both Central and Provincial, were assumed to be somewhere in the neighbourhood of Rs. 1,200 crores. Whether these financial assumptions have today—or indeed ever had—much relation to reality is perhaps open to question. Nevertheless, they are relevant as they constitute roughly the financial frame work within which planning was done.

The Plans actually put forward by Provincial Governments and Departments of the Government of India are estimated to cost about Rs. 1,300 crores. The statement on the next page shows the broad distribution of expenditure. The figures do not of course include the cost of financing the development of major industries as this, it has been assumed, will be left mainly to private capital and private enterprise.

Total cost of Central and Provincial 5-year Plans

(In crores rupees)

Subject	Central	Provincial	Total
*PRODUCTIVE SCHEMES			
1. Electrical development	†50	67	260
2. Irrigation		143	
3. Post and Telegraphs	56	...	56
4. Railway	230	...	230
Total	336	210	546
OTHER SCHEMES			
5. Industrial Development	‡15	§21	36
6. Agriculture (including kindred subjects)	22	123	145
7. Roads	39	147	186
8. Education	21	93	114
9. Medical and Public Health (including Water Supply and Drainage)	12	99	111
10. Civil Aviation	25	...	25
11. Meteorology	5	...	5
12. Broadcasting	4	...	4
13. Miscellaneous % (other public works, propaganda, mining, ports, administrative buildings, resettlements etc.)	40	83	123
Total	183	566	749
Grand Total	519	776	1,295

* Some of these schemes are not entirely self-financing.

† Estimated expenditure on certain regional projects. The division of the expenditure between the various administrations concerned has not yet been settled.

‡ Sindri Fertilizer Factory and Hindustan Aircraft.

§ Mainly industrial training and development of cottage industries.

% Includes Labour—20 crores, and Geological Survey—2 crores.

PART I—PROVINCIAL PLANS.

PREPARATION OF PLANS

It is needless to trace in detail the genesis of the provincial five-year Plans. Suffice it to say that in May, 1944, all Provincial Governments were asked to prepare Plans, and in October, 1944, more specific directions were given and a copy of a plan already prepared by the Bombay Government was sent to them to serve as a model. It was suggested that in view of the limitations imposed by finance and the scarcity of trained personnel, it might be advisable, in addition to attempting general progress throughout a province, to select certain compact areas for concentrated development such as would quickly yield visible and measurable results. It was also urged that special priority should be given to schemes for the training of personnel at home and abroad, and for the resettlement of ex-servicemen.

2. All Provinces have prepared plans more or less on the lines indicated, bu not all of them have adopted the concentrated area principle. The plans vary in merit. Some are fairly carefully integrated wholes; others are little more than collections of departmental schemes hastily thrown together. The plan put forward by the N. W. F. P. was so greatly in excess of the resources of the Provinces that complete revision* has been necessary. Some of the other Provinces are also revising their plans, though not so radically.

These Plans were considered by the Government of India last July and certain general suggestions made for their modification which are now being considered by the Provincial Governments. Meanwhile certain schemes selected from these plans are already in process of execution, and programmes of work for the year 1947-48 have been called for.

TOTAL COST OF PLANS

3. The total estimated cost of these Provincial Plans is 776 crores. Figures for each Province, showing also the proposed distribution of expenditure over the various main heads of development, are given in the statement on page 69. Another statement showing roughly the extent to which this expenditure is proposed to be met from (*i*) Central grants, (*ii*) Provincial funds, and (*iii*) loans is at page 70.

CONDITIONS ATTACHED TO CENTRAL GRANTS

4. The Central grants are to be subjected to the following conditions which have been agreed to by all the Provincial Governments :—

(*i*) The schemes under each head will form part of a policy or Plan approved generally by the Government of India.

(*ii*) Information will be supplied by the Provincial Governments as required by the Government of India regarding the details of every scheme.

(*iii*) Facilities will be given to the representatives of the Government of India to keep in touch with development and the progress of schemes should they so desire.

(*iv*) An annual report of the progress made in the execution of the schemes will be made available to the Government of India.

(*v*) Major variations in schemes will be notified in advance to the Government of India. Major variations are for, example, (*a*) changes in policy *e.g.*, in the matter of compulsory primary education, (*b*) alterations in the nature of the scheme itself, and (*c*) any considerable variation in the extent of application of the scheme and consequently in the cost of the scheme.

(*vi*) In special cases the Government of India may attach specific conditions to individual schemes in agreement with the Provinces concerned.

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* NOTE.—The revised plan has not yet been received, hence the N.W.F.P. Plan has for the most part been disregarded in this summary.

5. The ensuing summary of the Provincial Plans probably gives a fairly true general picture of their scale, scope and character, but neither it nor the statements incorporated in it can be regarded as wholly accurate in respect of individual provinces owing to revisions and modifications of which we have no full information.

The summary is divided into the following sections :

1. Irrigation
2. Electric Power
3. Roads
4. Ports
5. Agriculture
6. Veterinary and Live-stock
7. Forests
8. Fisheries
9. Co-operation
10. Industries
11. Education
12. Medical and Public Health.

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ESTIMATED COST OF PROVINCIAL FIVE YEAR PLANS AND PROPOSED DISTRIBUTION OF EXPENDITURE

(Rs. in Lakhs)

Heading	Madras	Bombay	Bengal	U.P.	Punjab	Bihar	C.P. and Berar	Assam	Orissa	Sind	Total
AGRICULTURE											
Agriculture	8,01	6,31	24,45	9,49	5,44	8,87	2,35	1,43	2,66	8,58	77,59
Veterinary and Live-stock	1,67	61	4,65	1,56	1,55	2,31	84	31	67	17	14,34
Forests	1,62	51	2,70	84	2,00	36	68	52	11	...	9,34
Fisheries	93	7	1,05	72	2	24	...	...	23	46	3,72
Co-operation	...	65	4,17	1,05	1,59	21	19	2,12	89	14	11,01
Rural Uplift	37	...	3	...	82	...	...	80	3,09	1,77	6,88
Total	12,60	8,15	37,05	13,66	11,42	11,99	4,06	5,18	7,65	11,12	1,22,88
INDUSTRIES	2,44	67	3,74	2,86	5,00	2,74	7	75	2,10	27	20,64
EDUCATION	30,67	3,39	9,44	12,69	10,00	9,05	11,64	1,09	4,86	45	93,28
HEALTH	14,08	4,62	22,58	18,32	11,99	9,55	4,49	7,51	2,09	4,15	99,38
ROADS	20,77	20,80	23,34	30,72	12,49	13,60	7,00	5,32	4,00	8,85	1,46,89
IRRIGATION & WATER-WAYS	28,10	5,75	35,92	3,81	40,31	11,72	...	...	1,33	16,24	1,43,18
ELECTRIC POWER	11,10	6,91	...	17,99	8,84	9,17	2,00	5,00	4,22	1,32	66, 55
MISCELLANEOUS (other public works, propaganda, mining, ports, administration, buildings, re-settlement etc.)	9,64	2,51	22,41	7,88	16,22	8,10	1,34	1,63	7,57	1,35	83,65
Grand Total	1,29,40	52,80	1,59,48	1,07,93	1,16,27	75,92	30,60	26,48	33,82	43,75	7,76,45

FINANCING OF THE PROVINCIAL 5-YEAR PLANS

(Based on the preliminary analyses of provincial plans prepared by the Planning and Development Department)

Province	Total exp. Rs. (crores)	Grants from C. G. Rs. (crores)	Provincial funds Rs. (crores)	Balance to be met from loans Rs. (crores)	Estimated portion of loans which will be unproductive Rs. (crores)	Remarks
1	2	3	4	5	6	7
Madras . .	129	42	47·5	39·55	24·5	
Bombay . .	53	17·75	25	10·25	5·25	Total cost of plan will probably be increased to at least Rs. 60 crores.
Bengal . .	159	69	9·7	80·3	43	Has been warned that proposed expenditure appears to be beyond its resources.
U. P. . .	108	47	31·5	29·5	6	
Punjab . .	116	24	34	58	6	Has recently intimated that Provincial funds etc. may be only Rs. 2·6 crores instead of Rs. 34 crores.
Bihar . .	76	31	12	33	22	
C.P. . .	31	14	13	4	2	
Assam . .	26·5	11·5	3	12	5	Wishes to increase expenditure by Rs. 16 crores.
Orissa . .	34	10	2·24	20·76	8·41	Government of India have suggested that a total expenditure of Rs. 26 crores will be more within Orissa's resources.
Sind . .	44	3·9	15	25·1	18	
Total excluding N.W.F.P. .	776·5	270·15	192·94	312·41	140·16	

IRRIGATION, ELECTRIC POWER AND FLOOD CONTROL

The prime importance of developing India's water resources in order to increase both irrigation and the supply of electric power is a common place which has not escaped the attention of Provincial Governments, and under the heads 'Electric Power' and 'Major Irrigation and Flood Control' they propose to spend rather over 200 crores or 25.8% of their total expenditure on all subjects. In addition, the Central Government may be contributing considerable sums towards certain major projects of regional importance, while some of the larger States are also participating in regional projects and have other projects of their own.

Regional Projects for multi-purpose waterways development

The political and constitutional structure of India is such that regional projects for multi-purpose waterways development give rise to problems which cannot always be readily solved. The following are some of the larger projects which traverse Provincial, State and even National boundaries and therefore require for their execution the agreement of two or more administations.

Name of project	Irrigation (in acres)	Electric) Power (in killowatts)
The Tungabhadra Project	300,000	120,000
The Mahanadi Project	2.500,000	200,000
The Damodar Valley Project	800,000	300,000
The Kosi RiverProject	3,000,000 (in Nepal and Bihar)	1,000,000
The Rihand Dam Project	(Not known)	250,000

In regard to the Tungabhadra Project which involves Madras and Hyderabad an agreement has been reached and work will shortly be started.

The Mahanadi Project affects the Central Provinces and the Province of Orissa and the Orissa States. It will probably be possible to begin very shortly the construction of one dam which is almost exclusively of interest to Orissa Province. This one dam will provide irrigation for 8 lakh acres.

The Damodar Valley Project affects Bengal and Bihar and presents a particularly thorny problem as it is unlikely to be directly remunerative. The best method of financing and executing this project is still under consideration.

The Kosi River Project, as recently revised, requires the co-operation of Nepal with whom discussions have already been opened with not unpromising results.

The Rihand Dam Project is likely to interest the U. P., Bihar, the C. P. and also some of the Eastern States. It is understood that the U.P. Government intend to go ahead with construction at an early date.

C. W. I. N. C. and the Central Technical Power Board

In this whole field of development, the Central Government has contributed material assistance by the establishment of the Central Technical Power Board and the Central Waterways, Irrigation and Navigation Commission (CWINC). These bodies have not only given technical advice to Provinces generally, but have also been of special service in investigating regional projects, which traverse Provincial boundaries, such as those noted above. It is possible that their staff may shortly have to be strengthened so that they will be able to undertake the actual construction of some of these projects on behalf of the Administrations concerned.

It is clear that in regard to the investigation, financing, execution and perhaps actual administration of several of these regional projects, the Centre or some Central or *ad hoc* regional authority must continue to play a decisive role.

Apart from these regional projects most Provinces have Irrigation and Electricity Projects of their own. Some idea may be given of the total scope of all these regional and Provincial projects, taking the two heads 'Irigation' and 'Electricity' separately.

MAJOR IRRIGATION

Estimated total increase.—In 1939-40 out of a gross cultivated area of 244 million acres about 55 million or 22½% were irrigated, of which nearly half were irrigated by Government canals. No definite target seems to have been set for increased irrigation in the post-war period ; but if all major projects, at present in hand or under active consideration, are successfully carried out, the increase in irrigation at the end of 10 years from Government sources of supply may be of the order of 23½ million acres. This would mean nearly doubling the area irrigated from Government sources.

Details by Province.—Assam and C.P. have no major irrigation schemes. Some details regarding the remaining provinces are given below.

Bengal.—Only about 2 million out of 30 millions cultivated acres are irrigated. In addition to its interest in the Damodar Valley Project, Bengal has two irrigation projects of its own, viz. The Moor Reservoir Project which is already under execution and is expected to irrigate 6 lakh acres and the Tiesta Project which is under investigation and regarding which no figures are available.

Bihar.—Out of 23 million cultivated acres about 5 millions are irrigated. Bihar is interested in the Kosi, Damodar and Rihand Projects all of which also affect other administrations.

Bombay.—Only 1½ million out of nearly 29½ million cultivated acres are irrigated. Bombay has no really big irrigation project., but only a number of comparatively small schemes. The expected results have not been indicated.

Madras.—10½ million out of 36 million cultivated acres are irrigated. Besides having an interest in the Tungabhadra Project, Madras has a large number of important projects of its own, viz. :—

Name of project	*Area expected to be irrigated*
Polavaram Reservoir Project	1,200,000 acres.
Lower Bhavani Project	200,000 ,,
Gandikota Reservoir	250,000 ,,
Malampuzha Project	40,000 ,,

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There are, in addition, a number of smaller schemes. It is expected that the net result of these schemes will be to increase the irrigated area by over 2 million acres.

Orissa.—Out of a cultivated area of 7 million acres, 1½ million are irrigated Orissa is interested in the Mahanadi Project, but has no other major project of its own.

Punjab.—Out of 30 million cultivated acres, 17 million are irrigated—13 million of these by water drawn from rivers.

The following important projects are in hand or under consideration. There are also a number of smaller projects, e.g.,

Thal Project	831,000 acres.
Bhakra Dam	4,500,000 ,,
Mianwali Hydro-electric and pumping project	140,000 ,,

All the projects taken together should give irrigation or improved irrigation to nearly 7 million acres.

Sind.—Practically the whole of the cultivated area of 5½ million acres is irrigated. Sind has two large irrigation projects which are planned to be completed in 10 years and which between them will bring nearly 5 million additional acres under irrigation—

The Lower Sind Barrage	2·5 million
The Upper Sind Barrage	2·3 ,,

U.P.—Out of 45 million cultivated acres about 13 are irrigated. The most important projects, in addition to the Rihand Dam, are :—

The Sarda Canal Hydro-electric scheme	1,140,000 acres.
The Nayar Dam	800,000 ,,

In addition work is in hand on the construction of 600 new State tube-wells which should bring 240,000 acres under irrigation.

ELECTRIC POWER

All Provinces have plans for increasing the supply of electric power, and the total sum proposed to be devoted to this purpose is roughly 66½ crores or 8·7% of the total expenditure. Some Provinces have worked out detailed schemes which are either already in process of execution or soon will be. Others have not yet got beyond the stage of surveying the general possibilities of electric development.

Estimated increase by 1950.—It is important to form some idea of what this proposed expenditure will mean in terms of increased electric power. Though the data available is somewhat incomplete, it is nevertheless possible to give a rough estimate of the increased power likely to be ready in 3 or 4 years time, if present plans are adhered to and successfully carried into execution. In order to give a complete picture, figures for Indian States as well as for the Provinces of British India are included. The main facts are as follows :—

At the beginning of 1946 the total installed capacity of the generating plant of Government and Public Utility undertakings in India was approximately 1,324,400 kw located as under :—

British India	1,177,800 kw.
Indian States	146,600 ,,

By the end of 1950 it is estimated that an additional capacity of nearly 980,000 kilowatts will have been installed, made up as follows :—

British India—	
(*a*) Addl. capacity planned by Government	420,300 kw.
(*b*) Addl. capacity planned by Electric Supply Companies and Corporations	336,250 kw.
Indian States	223,800 kw.
Total .	980,350 kw.

The above increase is considerable, but the estimtes may well prove over optimistic as plant deliveries are somewhat uncertain at present. Furthermore the following facts should be noted :—

(*i*) The estimated increase in Indian States, although practically confined to Mysore, Travancore and Hyderabad, is relatively much greater than in British India.

(*ii*) The additional capacity planned by the Calcutta Electric Supply Corporation accounts for no less than 250,000 kilowatts out of the total estimated increase of 757,000 kilowatts in British India.

Estimated increase by 1955.

By the end of 1955 or later greater increases, exceeding perhaps 1,500,000 kilowatts, may be expected, if some of the large projects, such as the Bhakra Dam, the Damodar Valley Project and the Kosi Project, materialise.

So much for the general picture. In the statement at page 74-77 the plans for electric development of individual Provinces and States are briefly summarised.

BRITISH INDIA. (GOVERNMENT PROJECTS)

(In kilowatts)

Province	Total installed capacity of generating plant (as on January 1st, 1946)	Addl. capacity planned by Government & estimated	to be ready by the end of 1950	1955 or later
Assam . .	2,924	No definite schemes have yet been drawn up. A survey is being conducted of the possibilities of hydro-electric development in the province.		
Bengal . .	3,34,973	(a) Damodar Valley Project being planned by the Central Technical Power Board.	3,000 (If work on the Tilaiya Dam is commenced immediately).	350,000
		(b) Moor Reservoir Project	Not known	Not known
		(c) A special staff of engineers has been appointed to carry out a general survey of the possibilities of electrical development and to prepare concrete schemes, for transmission and distribution of electric power.		
Bihar . .	27,162 (Not including private electrical installations of Tatas and Rohtas Ltd.)	Bihar Grid and Fertilizer Power Station, Sindri	80,000	110,000
		Kosi River Project	...	250,000
Bombay . .	324,149	The Provincial Government plans to rationalise the generation of electricity and to increase supply by building power stations, both Hydro and Thermal, but no details or specific figures have been given. The exact schemes have not been decided on.	47,000	Not known
C.P. . .	23,565	Central Thermal Power Station at Khaparkheda near Nagpur . . .	20,000	10,000
Madras . .	144,541	(a) Pykara Power Plant extensions	20,000	...
		(b) Moyar Hydro-electric Scheme	24,000	...
		(c) Papanasam Hydro-electric Power Station extension . . .	5,800	...

		(*d*) Mettur Power Plant Extension	10,000	...
		(*e*) Installation of two "Package Sets" at Madras	5,000	...
		(*f*) Machkund Hydro-electric scheme (Joint with Orissa)	...	103,000
		(*g*) Bezwada Power Station extension (Part of the Machkand Hydro-thermal Project)	9,000	...
		(*h*) Nellore Thermal Scheme	5,000	...
		(*i*) Pericard Hydro-electric scheme	...	40,000
		(Joint with Travancore. To be taken up after 1950).		
		(*j*) Tungabhadra Project	...	26,000
N.W.F.P.	10,824	Extension of Malakand Power Station	5,000	...
		Dargai Project	...	15,000
Orissa	1,221	(*a*) Machkund Scheme—Transmission lines only (A joint Madras-Orissa Project). See item (*f*) under Madras.	...	...
		(*b*) Cuttack Thermal Scheme	2,000	4,000
		(*c*) Ganjam Thermal Scheme	1,000	2,000
		(*d*) Sambalpur Thermal Scheme	1,000	...
		(*e*) Mahanadi Valley Scheme (A multi-purpose Project, details of which are not yet available but for which a project report is being prepared by the Central Waterways, Irrigation and Navigation Commission)	...	50,000
Punjab	89,461	(*a*) Rasul Hydro-electric cum tube-well Project	22,000	...
		(*b*) The Nangal Hydro-electric Power Project	72,000	45,000
		(*c*) The Mangla Hydro-electric Project	...	18,000
		(*d*) Mianwali Minor Hydro-electric and Pumping Project	6,600	...
		(*e*) Installation of two "Package Sets" (Oil fired) at Shalamar	5,000	...
		(*f*) Bhakra Dam Canal and Hydro-electric Project	...	300,000

BRITISH INDIA—(GOVERNMENT PROJECTS).—*contd.*

In kilowatts

Province	Total installed capacity of generating plant (as on January 1st, 1946)	Addl. capacity planned by Government & estimated to be ready by the end of		
			1950	1955 or later
Sind . .	...	Rohri Canal Hydel Scheme with Thermal stand-by. (Details of the scheme are still not settled)	...	10,000
U.P. . .	169,375	(*a*) Nayar Dam	...	20,000
		(*b*) Sarda Canal Hydel Scheme	41,400	...
		(c) Rihand Dam. (In the early stages of investigation)	...	150,000
		(d) The Tons Giri Dam (Joint scheme with the Punjab is still under investigation).	Not known	Not known
		(e) Muhammadpur project.	10,500	...
		(f) Installation of two "Package Sets" at Gorakhpur.	5,000	...
Delhi . .	29,285	Delhi Central Electric Power Authority.	20,000	Not known
TOTAL	1,175,037*		420,300	1,503,000

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*This excludes the installed capacities in Ajmer-Merwara, Baluchistan & Coorg aggregating 2,718 kw.

BRITISH INDIA. (ELECTRIC SUPPLY COMPANIES AND CORPORATIONS)

PROVINCE AND UNDERTAKING :		ADDITIONAL INSTALLATIONS UNDER ERECTION OR ON ORDER OR LIKELY TO BE ORDERED SHORTLY :
BENGAL	Calcutta Electric Supply Corporation	250,000
	Gourepore Electric Supply Company	18,750
BOMBAY	Ahmedabad Electric Supply Company	37,500
MADRAS	Madras Electric Supply Corporation	15,000
UNITED PROVINCES	Cawnpore Electric Supply Corporation	15,000
	TOTAL	336,250

INDIAN STATES

Hyderabad	13,051	(a) Nizamsagar Hydro-electric Power Station	15,000	...
		(b) New Thermal Station in Godavari Area at Ramgundam	37,500	...
Kashmir	4,270	Sind Valley Project	6,000	9,000
Mysore	61,000	(a) Jog Falls Scheme	120,000	...
		(b) Mekadatu Falls	...	22,500
Travancore	16,947	Pallivasal Scheme Extensions	22,500	72,250
Cochin State	2,919	Poringalkutheu Scheme	18,000	285,000
Other States	48,459	......	4,800	67,000
TOTAL	146,646		223,800	199,250

ROADS

Roads may be considered under the following two heads :—

(1) National Highways,

(2) Provincial, District and Village Roads.

1) *National Highways*

The planned expenditure on National Highways amounts to about Rs. 36 crores. It is to be met entirely by the Central Government, but the actual execution of the work will be carried out through the Provincial P.W.Ds.

It is expected that, as a result of this expenditure, about 5,421 miles of National Highways will be improved and 787 miles of new National Highways constructed in eleven Governors' provinces.

The largest new construction of National Highways will be undertaken in Bihar, Punjab and Bengal—260 miles, 110 miles and 100 miles respectively. In Madras, Assam, N-W.F.P. and Orissa most emphasis will be on improvement of existing National Highways.

In Indian States it is planned to construct, during the next fifteen years, 264 miles of new National Highways and to improve 2,654 miles including 25 in Sikkim Protectorate; but the allocation of the cost between the Government of India and the States has not yet been settled. For the present Rs. 2 crores have been provisionally earmarked for expenditure by the Government of India on National Highways in States during the next five years.

(2) *Provincial, District and Village Roads*

The Provinces will be wholly responsible for roads falling under this head. The total proposed expenditure is about Rs. 147 crores or 18·5% of the total expenditure on all provincial development schemes. United Provinces, Bengal and Madras each propose to spend over Rs. 20 crores on Roads other than National Highways.

In considering mileage targets under this head, we may distinguish between—

(*a*) Provincial Highways and District Roads, and

(*b*) Village Roads.

(a) *Provincial Highways and District Roads*

During the first five-year period new construction of about 17,509 miles and the improvement of about 33,393 miles of provincial Highways and district roads is expected. The United Provinces, Madras and Sind have the largest targets for new construction, *viz.*, 4,184 miles, 2,548 miles and 985 miles respectively. The leading targets for improvement of these roads are Madras—21,700 miles, United Provinces —4,800 miles and Bombay—1,500 miles.

(b) *Village Roads*

About 30,093 miles of village roads are to be constructed or improved in the first five years. In Madras and Bombay, village roads are to be metalled ; elsewhere they will be unmetalled. Madras proposes to construct or improve 10,600 miles of village roads. The Bombay target is 2,700 miles, and the United Provinces and Punjab targets 11,000 miles and 1,970 miles respectively.

General Summary

A general summary of all road plans is contained in the Statement below:

Classification of roads	Expenditur during first five-year plan	Mileage Improvement	New mileage
	Rs.		
National Highways	36 crores	5,421	787
Provincial Highways, Major district roads and minor district roads . . .	147 ,,	33,393	17,509
Village Roads	...	...	30,093 (New construction and improvement)

NOTE.—The expenditure on Roads shown above includes expenditure on Major bridges and cost of land acquisition. The mileage targets are taken from the latest estimates worked out by Transport Department (Roads).

Ultimate aim of the Road Plans.—This may be gathered from the aims of some of the individual provinces. Madras hopes that at the end of fifteen years no village will be more than five miles from a highway or a district road. Sind aims at placing every village and town of a population of over 1,000 on a road. The Punjab's ultimate object is to provide every town in the province of over 5,000 population with a metalled road and to bring every village within two miles of an all-weather road.

Role of the Central Government.—The planning of National Highways, including coordination with railway development, is primarily the responsibility of the Transport Department of the Government of India who will also exercise a general supervision over the execution of the work. In addition, it is proposed to establish a Central Road Research Organisation which will embrace a Central Research Institute with a laboratory and experimental station at Delhi and sub-stations elsewhere.

PORTS

Two of the maritime provinces *viz.* Madras and Orissa have included in their plans schemes for the development of minor ports. Madras proposes to spend no less than Rs. 3·4 crores on such schemes and on the construction of the Rameswaram Ship Canal. There is doubt, however, whether the latter project would be a practical success. Orissa has only a comparatively minor scheme for developing the port of Chandbali.

It is presumed that the Port Trust Authorities of the major ports have plans for development, but no details are available.

In regard to port development in general the Government of India appointed an Advisory Committee known as the Ports (Technical) Committee which has submitted a Report.

AGRICULTURE AND KINDRED SUBJECTS

About Rs. 123 crores or 16 per cent of the total expenditure on Provincial Plans is proposed to be devoted to Agriculture and kindred subjects *i.e.*, animal husbandry, forestry, fisheries etc. The actual percentages vary from 10% in the case of Madras and Punjab to 25% in the case of Sind.

AGRICULTURE

On a general review of all Provincial Plans last July, it was felt that insufficient money was going to be devoted to Agriculture schemes calculated to produce quick results. It was, therefore, suggested to all Provincial Governments that they should review their Plans for Agriculture with a view to including more schemes of this kind. It is understood that this suggestion has been well received by most provinces but the full results are not yet known.

The Agricultural target set for British India is the annual production of an additional 3 million tons of food grains by 1951-52.

The schemes falling under the head 'Agriculture' may be roughly divided into the following categories :—

(*a*) Schemes for training and expansion of staff.

(*b*) Research schemes.

(c) Schemes for encouraging the use of (i) improved seeds (ii) Manures and fertilizers, (iii) Improved agricultural implements and farming techniques,

(d) Minor irrigation schemes.

Training Schemes.—All Provinces have schemes for increasing the supply of trained personnel which is, of course, a first essential for the execution of any long-term plan for agricultural development. Madras has perhaps the most ambitious programme. In addition to starting a second agriculture College they propose to train annually over 500 fieldmen and 2700 demonstration maistris.

Research.—As regards research, the Punjab, where so much has already been accomplished, proposes to spend over Rs. 1 crore on various schemes for the expansion or intensification of research work on improved varieties of crops, soil chemistry and physics, animal nutrition, the control of pests and plant diseases etc. etc.

Madras and Bengal are devoting money to schemes for the scientific study of cultivable waste.

Bombay will also spend money on similar research and on agriculture engineering, while Orissa proposes to establish an Agricultural Research Institute which it did not possess before.

It is not altogether clear to what extent the research programmes of the various provinces are being harmonised and brought into relation with the work of the I.C.A.R. so as to prevent their overlapping.

Improved seed, fertilizers etc.—For encouraging the use of improved seed, fertilizers and manures, improved agricultural implements and farm techniques, all Provinces plan to increase the number of demonstration, experimental and seed farms with the ultimate object of having one such farm in every district. Many provinces also have schemes for demonstration and experimental plots in individual villages and for seed stores in every Thana or Taluka.

Some of the specific targets aimed at by individual provinces are noted below.

Assam plans to open 16 experimental and seed farms and (somewhat optimistically) to bring 33 1/3 per cent of the cultivated area under improved crops through multiplication and distribution of seed.

Bengal aims at an all round increase in yields of 5 per cent through dissemination of improved seed. It is also hoped that the production of potatoes will be doubled on the existing acreage.

Bihar proposes to establish a net-work of 500 depots for the storage of seed, manure and improved implements.

Bombay plans to bring 77½ lakh acres under improved crops through seed multiplication and distribution schemes and to extend manures and fertilizers to 22 lakh acres.

Madras will increase the number of depots for stocking improved seeds, manures, oil cakes and agricultural implements from 226 to 440 and plans to bring 49 lakh acres under improved strains.

Orissa hopes by the use of better seed and fertilizers to improve the yield of paddy over 5 lakh acres and to bring an extra 3 lakh acres under pulses.

U.P. aims at distributing 15 lakh maunds of improved seed, 18 lakh maunds of fertilizers and 10 lakh maunds oil cake every year. It is also hoped that in 10 years there will be one *Kamdar* for every 20 villages.

The *U.P.* also, in company with Sind (where agricultural labour is scarce), has schemes for mechanical cultivation and plans to eradicate Kans from about 12 lakh acres in Bundelkhand by deep ploughing with tractors.

Minor Irrigation.—In the category of 'minor irrigation schemes' there fall schemes for the sinking of wells, the installation of pumps, and the construction or repair of tanks, reservoirs, bunds, embankments and small drainage and irrigation channels. All Provinces have drawn up schemes of this character and these are likely to be extended and expanded as a result of the review of the agricultural plans which provinces have been asked to undertake with the object of securing more immediate results. Thus the Punjab which had originally drawn up a scheme for subsidising the sinking of 1,500 new wells per annum now aims at sinking 15,000 in two years. Several provinces contemplate schemes for encouraging the sinking of tube-wells.

There is at present insufficient data for preparing even rough estimate of the acreage likely to be brought under irrigation as a result of all these schemes.

VETERINARY AND LIVESTOCK

Provincial schemes under the head Veterinary and Livestock' are estimated to cost in all about Rs. 14½ crores. Bengal and Bihar propose to spend the largest sums *viz.* Rs. 4·65 crores and Rs. 2·31 crores respectively.

The schemes of all the Provinces are broadly similar in character and provide for :—

(*i*) The establishment of livestock breeding and demonstration farms.

(*ii*) Dairy and Poultry development and wool production.

(*iii*) Veterinary training and research.

(*iv*) Construction and improvement of veterinary hospitals and dispensaries.

Below are given some of the targets towards which individual provinces are working.

Madras plans to produce within eight years 100,000 bulls and 100,000 cows of the Ongole breed, and to open annually two new livestock farms with the ultimate object of having one in every district. These farms, besides breeding good stock, both cattle, sheep and poultry, would also demonstrate improved methods of milk production, feeding, etc.

U.P. has a very similar scheme. Three farms are to be opened annually so that there will be a farm in every district at the end of 16 years.

The *Punjab* already has a number of breeding farms, but proposes to establish 6 more.

On the veterinary side *Bombay*, *Bengal* and *Bihar* have taken as their goal the standard suggested by the Royal Commission on Agriculture, namely, one Assistant Veterinary Surgeon to every 25,000 head of cattle. Bombay hopes to achieve this in the areas selected for concentrated efforts. Bengal plans to raise the number of Veterinary Assistant Surgeons from 200 to 650. This number would have to be increased by 50% to reach the standard suggested by the Royal Commission. Bihar hopes to reach this standard at the end of ten years.

FORESTS

All the Provinces have included in their plans schemes for forest development. These are estimated to cost in all about Rs. 9½ crores, that is about 1·2% of the total provincial expenditure on development. Bengal, Punjab and Madras propose to spend the largest sums, *viz.*, Rs. 2.7 crores, Rs. 2·0 crores and Rs. 1·6 crores respectively.

Character of schemes.—Besides schemes for afforestation, acquisition of private forests, plantation of avenue trees, extension of casuarina and teak plantations, there are also schemes for anti-erosion, contour-bunding and soil conservation. Almost all provinces have also provided for training of forest staff, development of forest-roads and the construction of buildings for forest staff.

Targets.—Some provinces have set themselves specific targets for the first five years period. Thus *Madras*, which has reserved forests covering about 12% of its total area, aims at increasing this to 20 to 25% by acquiring or bringing under proper management 4,000 sq. miles of forests now in private ownership and by bringing within the reserved area about 1,000 sq. miles at present unreserved. *Bihar* also aims at raising the area under properly managed forests to 20% but expects to take 15 years to reach this objective. In *Bengal* forests are very unevenly distributed and it is proposed to acquire and afforest about 150 sq. miles of waste-land in districts which are more or less devoid of forests. *Sind* contemplates afforesting 600,000 acres but detailed schemes have not yet been worked out. The *Punjab* has specified no target as regards forests, but has a scheme for planting canal and road-side avenues over a length of 15,000 miles.

Quite a number of these forest schemes are expected to be self-financing over a period of years.

FISHERIES

Need of Central Co-ordination.—In order to develop India's fisheries considerable sums will have to be spent on training, research and experiment for which there will be no immediate or direct return. The expenditure required will be beyond the resources of any individual Province; furthermore it is essential that all this spade work of research and collection of data, both in regard to inland and marine fisheries, should be centrally planned and co-ordinated. Hence a scheme has been drawn up, but has not yet been put into execution, for the establishment of a Central Fisheries Research Institute. Without this Central Institute the work planned by individual Provinces for the scientific study of fish life, and for research into fish processing, freezing and chilling, etc., will be relatively unfruitful and the full potentialities of India's fisheries will not be successfully explored.

Details of Provincial Schemes.—With this caveat, a few words may be said regarding Provincial Plans for the development of fisheries. With the exception of C. P. all Provinces have drawn up schemes under this head estimated to cost in all about Rs. 4 crores. Nearly half of this sum is intended to be spent on inland fisheries, about 1·2 crores on marine fisheries, and the remainder on training and research.

Madras and Bengal contemplate the largest expenditure and both propose to devote considerable sums to research. *Madras* intends to open two new Marine Biological Stations, to undertake detailed scientific study of the Hilsa fisheries. and to conduct research on the various methods of preserving fish. Bengal intends to establish a Central Technological Research Laboratory in addition to undertaking general research in Pisciculture. Bombay and Sind both propose to establish acquariums for the study of marine biology and Orissa is to conduct biological investigation into the Chilka Lake which has been over-fished.

Madras, Bengal and Orissa are all to spend money on training. Orissa plans to send three students abroad.

Sind, Bombay, Madras, and Bengal, with a view to developing marine fisheries, have schemes for designing, procuring and operating improved fishing craft and fishing tackle.

Orissa, though it has a long coast line, possesses no suitable harbour facilities and cannot yet consider major schemes for the development of marine fisheries; but it plans to improve inland and estuarine fisheries.

Other Provinces (except C.P. and N.W.F.P.) also have schemes for the development of inland fisheries both river and tank.

CO-OPERATION

All provinces appear to visualise co-operative societies playing a much more important part in the economic life of both the rural and the urban population than they have done in the past and the total expenditure proposed under this head is no less than Rs. 11 crores.

The schemes which have been drawn up provide not only for the expansion of credit facilities, but also for the extension of the co-operative principle to many other spheres and purposes, *e.g.*, the consolidation of holdings, marketing of produce, management of village forests, fruit growing and bee-keeping, exploitation of fisheries, purchase of fertilisers and agricultural implements, milk supply in urban areas, etc. ; in some Provinces experiments in real "Co operative Farming" involving a pooling of land, appear to be contemplated, but the details of such schemes and their full implications have not yet been worked out.

Some important schemes and targets are indicated below :

The *Madras Government* proposes to have 50 agricultural colonies scattered over the Province. The land in these colonies will be owned by a co-operative society of which the settlers will be the members—ex-servicemen. The scheme is intended to provide for 9,000 men.

Bombay proposes to establish Central Creameries at five district headquarters and 6 milk supply units in urban areas with feeder societies in surrounding rural areas.

Bengal intends to organize 10,000 fishermen in 14 societies for the co-operative exploitation of fisheries, and to develop the Co-operative Handloom Industry by organising 30,000 weavers into Co-operative Societies and installing a spinning mill and dyeing factory.

In the *Punjab* the Co-operative Movement is already well established, but considerable expansion is planned. The target set is to establish co-operative credit societies in 50% of the villages of the Province within 10 years, to consolidate 30% of the cultivable area, and to increase substantially the number of Marketing, Cattle Breeding, Soil reclamation, and other miscellaneous societies.

The *United Provinces* Government contemplate launching scheme for the establishment of multi-purpose co-operative societies in 3,000 villages. The intention is that these societies should bring within their scope all the economic activities in which the villagers are interested. To begin with, they will tackle credit, better farming, the marketing of agricultural produce, cattle welfare and dairy farming, hand spinning and the supply of consumer goods. This will be achieved by the grant of controlled credit on the security of the agricultural produce of the cultivator, or handspun yarn of the spinner for purposes directly concerned with production. On the better farming side, the societies will maintain stores for the supply of improved varieties of seeds, fertilisers and implements. Where a cultivator desires to raise money for seed, manure, or implements, he will be given credit in kind instead of in cash. At these stores will also be stocked such consumer goods as the villager ordinarily requires, *e.g.*, salt, kerosene oil and cloth. On the marketing side, every member will pledge himself to market his surplus produce and yarn only through the village society, or the Union. If it is found necessary, suitable legislation will be undertaken.

The United Provinces Government also propose to establish milk supply units in ten big towns.

Both *Bihar* and *Orissa* hope to introduce a scheme for providing cultivators with cheap credit and for advancing to them seeds, manures and implements on the model of the Credit Agricole of Egypt.

INDUSTRIES

As the Central Government have undertaken to plan the development of major industries, the Provincial Governments have for the most part confined their industrial planning to schemes for the provision of technical training and the development of cottage and small-scale industries. The Provinces (excluding N.W.F.P.)

propose to spend altogether about Rs. 20·6 crores on schemes of this character. This represents rather less than 3% of the total expenditure on all Provincial Plans. Broadly speaking, about Rs. 11·0 crores will be devoted to technical training and the rest to cottage and small-scale industries and to industrial research.

The Punjab and Bengal propose to spend the largest sums, *viz.*, Rs. 5 crores and Rs. 3·7 crores respectively. Sind and C. P. have very low figures of Rs. 27 lakhs and Rs. 7 lakhs. The present lack of cheap electricity in these two provinces may be a discouraging factor.

Industrial Training

All Provinces are devoting resources to schemes for technical training. These include schemes for opening polytechnics, industrial schools and engineering colleges, and for expanding existing institutions; for sending students abroad for training; and for peripatetic demonstration parties in tanning, wood work, pottery, soap making, weaving, dyeing etc. Some provinces also have special schemes for training ex-servicemen, but these are being absorbed into a larger scheme sponsored by the Government of India.

A few details by provinces may be given by way of illustration. Madras plans to set up polytechnics and industrial schools sufficient to turn out a thousand diploma holders, 1,500 trained craftsmen and 6,000 artisans per annum. This is the only Province which has given such precise figures. The U. P. Plan includes schemes for 6 polytechnics and 10 Technical High Schools. The Punjab is notable for a scheme for starting 23 new industrial schools for girls, raising the total to 30. Bihar proposes to start about 25 new technical institutions.

All Provinces have schemes for sending students and officials abroad for training. Special mention may however be made of Bombay, Bengal and Bihar in this respect.

Cottage Industries

The schemes for encouraging and assisting cottage industries are, perhaps necessarily, somewhat sketchy. They include schemes for subsidies or loans on easy terms for purchase of equipment; schemes for the improvement of marketing facilities and for grading and standardising products; schemes for the establishment of model factories and for the provision of technical advice; and schemes for fostering industrial co-operative societies.

The cottage industries which it is proposed to deveolp ary somewhat from province to province, but hand-loom spinning and weaving, silk weaving, calico printing and dyeing, tanning and leather work, wood work and pottery are common to most provinces.

Provincial Industrial Ventures

Besides encouraging cottage industries some provinces have plans for embarking on small-scale industrial ventures of their own. Thus Bengal plans to develop the salt industry and to establish a glace kid tannery. The Punjab intends to set up a coal tar distillation plant. Orissa proposes to provide funds for an Industrial Investment Corporation while Assam is meditating more ambitious plans for Government textile, paper and sugar factories.

Research

Some Provinces, *viz.*, Assam, Bihar, Madras, Bengal and the Punjab have made some provision for industrial research. Sericulture, industrial chemistry, wood distillation and leather manufacture are the principal subjects selected.

EDUCATION

The expenditure proposed under this head by all Provinces is about Rs. 93 crores which is roughly 12 per cent of the total expenditure proposed on all subjects.

Training

Provincial educational development plans are in the main based on the Sargent Report with variations to suit local conditions. In all of them training schemes and schemes for the expansion of training institutions have a large place.

Compulsory Primary Education

Lack of trained teachers no less than lack of finance prevent the immediate introduction of compulsory free primary education for all. Provinces, therefore, necessarily plan to proceed gradually. Details of their schemes in regard to compulsory primary education are briefly indicated below.

The *Madras Government's* ultimate objectives to provide free primary education for boys and girls up to standard VIII in the course of 20 years, *i.e.*, in half the period recommended by the Sargent Report. As a first step, they propose to bring about 1·33 million children under instruction during the first five years, compulsion being applied up to the V standard.

Bombay Government propose to introduce compulsory free education for children between the ages of 6 and 11 in selected talukas. This is expected to bring to schools about two lakhs additional children during the first five years and 12 lakhs children by the end of 15 years.

The *Bengal Government* have provided for a rapid expansion of training colleges for training Primary School-teachers, and in the fourth or fifth year, when there will be an adequate supply of trained teachers, they propose to start increasing the number of primary schools with the object of introducing compulsory primary education throughout Bengal in 20 years.

The *United Provinces Government's* plan envisages the introduction of compulsory education for boys and girls in 12 districts only and only for age groups from 6 to 11. ,It is estimated that this will bring 16 lakhs boys and girls to school and will require nearly 52,000 teachers.

The *Punjab Government* have prepared a 35 year plan for educational development which would provide for the introduction of universal compulsory free education between the ages of 6 and 11. They propose to open 600 new primary schools per year beginning from the third year.

The *Bihar Government* propose to introduce compulsory education for boys and girls from the age of 6 to 14 in approximately one-quarter of the Province.

The *Central Provinces Government* have a general plan covering the entire Province and a pilot plan for the introduction of compulsory basic education in selected areas.

The *Assam Government* propose to open at least 100 two-Teacher Primary Schools every year.

Under the *Sind Government's* schemes, it is expected that, within the five-year period compulsory primary education will be introduced in about 30 taluks.

The *Orissa Government* have provided for the introduction of free and compulsory primary education in Municipal areas from the second year and in some villages from the third year. This will bring 25,000 children a year to school from the third year. Orissa has a large aboriginal population in the partially excluded areas and schemes have been drawn up with particular regard to the needs of these communities.

Other Educational Schemes

Provision has also been made in the Provincial Plans for the development of middle high school and University education, physical education, girls education, adult education, education of the handicapped and also for vocational (technical, agricultural and commercial) education. Schemes for the provision of a free midday meal for school children and a school medical service are a notable feature of most of the Provincial Plans. Provinces are also participating in a scheme sponsored by the Central Government for post-graduate and technological education of Indian students in U. K. and U.S.A.

MEDICAL AND PUBLIC HEALTH

The expenditure proposed under this head by all Provinces is about Rs. 99 crores, which is roughly 12·6 per cent. of the total expenditure proposed by Provinces on all subjects. The proposed expenditure of individual Provinces ranges roughly from 10 to 17 per cent. of their total expenditure.

Bhore Committee's Recommendations

Provincial schemes under this head were prepared before the publication of the Bhore Committees Report, and are being revised, where necessary, in the light of the Committee's recommendations. All Provinces have been asked to include pilot schemes for the establishment of a district health organisation in selected areas in accordance with the standards suggested by the Bhore Committee.

Types of Scheme

The classes of schemes included in the Provincial Plans are generally as follows :

(*a*) Training schemes and schemes for the expansion of training institutions. Almost all Provinces have got schemes for increasing the supply of doctors and nurses. Some have also made provision for training health officers, midwives, technicians for X-ray work and training in pharmacy.

(*b*) Improvement or extension of hospitals and rural dispensaries.

(*c*) Public Health measures *e.g.*, T. B. clinics, anti-malaria measures, nutrition surveys and popularisation of better dietaries, maternity and child welfare, measures to eradicate hookworm, kala-azar, leprosy, filaria etc., improvement of water supply and drainage ; rural and urban housing.

Summaries of the schemes of Madras, Bengal and U.P. are given below. The plans of other Provinces are on similar lines, though generally on a rather smaller scale.

MADRAS : The Madras Government are working on a 20-year plan designed to bring general medical and public health services within a reasonable distance of every village in the Province. When the plan is completed, no village would be more than five miles from a rural dispensary, while in thickly populated areas, there would be a health centre for every 10,000 people. The dispensaries would not be fully equipped hospitals but each would have eight beds, four for maternity cases, two for emergencies and two for cases which require isolation. At each taluk headquarter there would be a fully equipped hospital containing from 50 to 100 beds where, in addition to medical and surgical aid, special departments would be provided to treat patients suffering from tuberculosis leprosy, veneral diseases and eye diseases.

The district headquarters hospitals would be staffed by specialists, including a dental surgeon and would be provided with a first class laboratory and an X-ray department. The complete plan involves the construction of 1,487 new dispensaries and 177 new taluk headquarters hospitals and the improvement or reconstruction of district headquarters hospitals. During the first five years, it is proposed to open 270 dispensaries, to reconstruct 40 taluk headquarters hospitals and to raise three district headquarters hospitals to the required standard.

Within a period of ten years, every village is to be provided with a protected supply of drinking water. It is proposed to implement half of this programme during the five-year period at the end of which 60 water supply schemes and 21 drainage schemes will be in operation.

It is also proposed to develop and expand the Town Planning Department and replan built up and insanitary areas.

BENGAL : The Bengal Government propose to establish 500 new rural dispensaries and a hundred mobile dispensaries, and to raise the number of permanent beds in hospitals from the present figure of 6,400 to 8,900 in five years. This will still be far below the minimum of 16,400 beds required in the Province. There is also a scheme for the training of nurses. It is expected that, after the third year, 100 nurses would be added annually to the Bengal Nursing Service.

UNITED PROVINCES : It is estimated that, for the rural population of 50 million, scattered over an area of one lakh square miles, 2,500 to 3,000 dispensaries are required. There are, at present 750 allopathic dispensaries in the Province. It is proposed to open 500 new allopathic dispensaries and 700 new indigenous dispensaries and to subsidize 1,100 medical practitioners of whom 500 would practise indigenous medicine.

The Public Health Plan include schemes for creating 30 special units for the control of malaria and a comprehensive scheme to provide an efficient midwifery service both in towns and villages. There are also schemes for improving drainage and water supply in villages.

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PART II—PLANS OF DEPARTMENTS OF THE CENTRAL GOVERNMENT.

In considering the Plans of the Central Departments we may distinguish between :—

(*i*) Those Departments which are directly responsible for constructional programmes of their own, of which the Railway Department is the most important, and

(*ii*) Departments which are, as it were, hand maids of the Provinces and are mainly concerned with the provision of training facilities, research, and technical advice, *e.g.*, Agriculture, Education and Health Departments.

We may consider first Departments with constructional programmes.

Railways.

Railway Department.—The proposed cost of schemes under this head during the five year period is about Rs. 230 crores.

New lines, most of which would be unproductive, account for Rs. 50 crores. It has been decided to restore the Bhimsen Khairada line and to construct the Rupar-Talaura line in the Punjab. Other projects (except a few required for strategic purposes) have been selected for traffic and engineering survey in consultation with the Provincial Governments. The financing of these lines will have to be negotiated with the Provincial Governments concerned.

Electric traction schemes proposed by the G.I.P., B.B. & C.I., E.I., and S.I. Railways are estimated to cost about Rs. 8 crores.

The proposed expenditure on rolling stock is Rs. 50 crores and includes schemes for the improvement of III Class passenger coaches.

The balance of about Rs. 122 crores will be devoted to the improvement or replacement of office buildings, staff quarters and amenities, workshops, stations, the signalling system, track and bridges, fencing etc. Over Rs. 70 crores of this expenditure is classed as ‘ Replacement Works. Provision has also been made for improved amenities for passengers (Rs. 5 crores).

Roads and Ports.

Transport Department.—These have been discussed in Part I—Summary of Provincial Plans.

(*a*) *Posts and Telegraphs.*

Communication Department.—The proposed expenditure under this head for the first five years is about Rs. 56 crores. The complete plan will take 15 years to execute. It is proposed that every village with a population of 2,000 and over shall have a post office. This would mean an addition of over 8,000 to the existing number of 20,000 rural post offices. In addition, about 1,000 villages with a population of less than 2,000, which have been selected by Provincial Governments for model development, will also be provided with post offices.

It is proposed that there should be a telegraph office at all towns with a population of 5,000 and over. This would mean an increase in the existing number of telegraph offices from 2,300 to 2,800.

In the case of telephones, it is proposed, that, as a first step, all towns with a population of more than 30,000 should be provided with a telephone exchange.

There are also schemes for improving and extending the trunk services and for providing residential accommodation and better amenities for the staff.

(b) *Civil Aviation.*

The estimated expenditure during the five-year period is about Rs. 25 crores. It is proposed to establish a system of air services in India which would link the principal commercial and adminisrative centres of the country and connect with the principal neighbouring countries. These services will be operated by a limited number of private companies, but in order to ensure the rational and orderly development of air transport, a Licensing Board has been established. In the early stages it is proposed to give financial assistance for the operation of certain routes.

Schemes have also been proposed for aerodrome and air route Construction and Organisation, Aeronautical Radio Service, Training and Education

Broadcasting.

Information and Broadcasting Department.—The expenditure proposed under this head is 3.6 crores and is to be devoted mainly to the installation of additional transmitter for urban programmes at Bombay, Madras, Calcutta, and Delhi and to the establishment of new broadcasting centres, *viz.*, Allahabad, Karachi, Nagpur, Bezwada and Ahmedabad.

Works, Mines and Power Department.

(a) *Irrigation and Electricity.*

These are dealt with in Part I—Summary of Provincial Plans.

(b) *Mines and Mineral Development.*

The proposed expenditure under this head is about Rs. 2 crores an is to be devoted to the re-organisation and expansion of the Geological Survey, and of the Indian School of Mines, Dhanbad, and the establishment of a Directorate General of Mineral Development.

(c) *Town Planning.*

It is proposed to have a town Planning organisation in the Central Government not only to advise on schemes of the Central Government, but also to advise the Provinces and States. The details of this organisation have not yet been worked out and submitted to Government.

Industries and Supplies Department.—The Central Government are directly concerned with two important new projects *viz.*, the Sindri Fertilizer Factory and the Hindustan Aircraft Factory.

Other Departments of the Central Government concerned with development are not directly responsible for constructional programmes. Their function is rather to co-ordinate the work of the provinces, to supply technical advice and provide for training and research. Their plans cannot easily be summarised, but a few words may be said about them.

Agriculture, Education and Health.

All-India policies in regard to the above subjects have been outlined in the Kharegat Report and Government's statement on Agriculture and Food Policy, in the Sargent Report, and in the Report of the Bhore Committee. The schemes of the Central Government have been framed in the light of these policies and are supplementary, and should be complementary, to the Provincial Plans on these subjects. The expenditure proposed under Agriculture is Rs. 22 crores, under

Education Rs. 21 crores, and under Health Rs. 12 crores. Some important schemes are :—

Agriculture.

Agricultural Price Stabilisation Scheme.

The Establishment of a Central Agricultural College.

The Establishment of a Central Animal Husbandry College.

The Establishment of a Institute of Fruit Technology.

The Establishment of a Fisheries Research Institute.

Education.

Training College for teachers in Technology.

Establishment of two higher technical institutions on the lines of the Masachusatts Institute of Technology, U.S.A.

Assistance to Central Universities.

Assistance to Indian Institute of Science, Bangalore.

Health.

Establishment of an Indian Medical Institute to be attached to the Delhi University with a 1,000 bed hospital which will also provide for under-graduate, post-graduate training and advanced resarch.

College for higher training of nursing Teachers and Administrators,

Establishment of an organisation for the control of professional education—a Nursing Council, a Dental Council and a Pharmacy Council—in order to maintain a uniform minimum standard of professional education.

Expansion of the Malaria Institute of India.

Labour.

Schemes under this head are estimated to cost Rs. 20 crores and include (*i*) schemes for the training, resettlement and employment of ex-service personnel and discharged war workers, (*ii*) other schemes mainly of the nature of Labour Welfare Schemes *e.g.*, Health Insurance, subsidised building of houses for labourers.

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PART III. PLANNING OF MAJOR INDUSRIES.

Industrial Policy.—1. A statement of Industrial Policy was issued by Government in April 1945. In it the need, on the one hand, for planning and controlling industrial progress in the public interest, and, on the other, for a wide measure of State encouragement and assistance were emphasised.

The main points put forward were as follows :—

I. About 20 major industries should be brought under the control of the central Government.

II. Basic industries of national importance, *viz.*, Aircraft, Automobiles and Tractors, Chemicals and Dyes, Iron and steel, Prime Movers, Transport vehicles Electric machinery, Machine tools, Electro-chemical and Non-ferrous industries, should be nationalised, if adequate private capital was not forthcoming and it is regarded as essential in the national interests to promote such industries.

All other industries to be left to private enterprise under varying degrees of control.

The case of coal to be examined and dealt with separately.

III. In order to regulate industrial development Government would have to take power to licence industrial undertakings.

Control would also be required to secure balanced investment, to secure for industrial workers a fair wage and decent conditions, to prevent excessive profits to private capital, and to ensure the quality of industrial products etc. etc.

IV. Government have a primary responsibility for assisting industrial progress by (*a*) development of transport facilities, (*b*) development of power (*c*) providing for Scientific and Industrial Research, (*d*) providing facilities for technical education.

Government might also assist industry by helping to raise capital, by tariff and taxation policy and by the procurement of capital goods from abroad.

2. *Central Government control of major industries.*—In order to bring major industries under the control of the Central Government as contemplated in I above, legislation is necessary. Before passing the necessary legislation it was considered desirable to consult Provinces and States.

The Provinces were addressed on the subject and on the whole their replies were favourable ; but at that time most Provinces were under a Section 93 regime and the views of the new popular ministries have not yet been fully ascertained.

As regards the States tentative discussions took place with States' representatives, but more effective discussions were postponed till outstanding issues had been cleared between the Centre and the Provinces.

The net result is that legislation, bringing major industries under Central control, has not yet been undertaken. Meanwhile, a certain degree of control could and has been achieved by the use of the Defence of India Rules, but this is, of course a temporary expedient.

A parallel proposal for bringing certain important minerals directly under central control is likewise held up for similar reasons.

3. *Licensing of industries.*—Legislation for licensing of industrial undertakings, as contemplated in III above, has necessarily been held up pending a decision regarding Central control of industries.

4. *Nationalisation.*--As regards the question of nationalisation mentioned in II above, no particular action has yet been taken.

5. *Government assistance*

Transport.—As regards Government assistance to industry, plans for Road and Railway development have already been discussed briefly in Part I and II of this summary.

Power.—Similarly, plans for the development of electrical power have been dealt with in Part I. In regard to the other main source of power, *viz.*, coal, the Government of India appointed a Committee last year known as the Coal fields Committee whose report has been received within the last few days.

Research.—Plans for Scientific and Industrial Research have been put forward by the Council of Scientific and Industrial Research. Schemes have already been sanctioned for a National Chemical Laboratory, a National physical Laboratory, a National Metallurgical Laboratory, a Central Fuel Research Station and a Central Glass and Ceramic Research Institute. Other research schemes are under consideration.

Technical training.—There are a number of schemes for providing technical training, both in India and in foreign countries. One Scheme is already in operation under which Indian students with high science and engineering degrees are sent abroad for higher technological education ; 300 students were sent last year and about the same number are being sent this year. The technical training scheme inaugurated in 1940 for the intensive training of semi-skilled personnel for the defence services is being continued for a period of 3 years as part of the organisation for the resettlement of ex-servicemen. Another training scheme intended to train craftsmen for the post-war needs of civilian industry has been drawn up by the Standing Advisory Committee on Technical training. There are also schemes for providing technical training in the Provincial plans and in the plans of the Education Department of the Government of India.

To help the financing of industries a bill for the establishment of an Industrial Finance Corporation is proposed to be introduced at the ensuing session of the central Legislature.

6. *Industrial Panels.*—So much for the general frame-work of industrial policy. For the planning of the development of individual industries or groups of industries, a large number of industrial panels were appointed, consisting of both officials and non-officials with knowledge of the industries concerned. The panels were required to make their recommendations in consultation with Provincial and Indian State Governments. These recommendations were to cover a wide field *viz* : the extent of development desirable and possible, its most suitable organisation of the industries, the extent of Government assistance required, the best location of units of the industries with reference to all relevant factors, the extent of Government regulation and control required, and the extent to which the industries can be developed on a cottage basis.

Report on 22 industries have been or are being finalised (marked with an asterisk in the list below). Reports on the remaining 9 are expected to be ready within the next few months. Brief summaries of reports on 20 industries have been prepared and are attached herewith. Orders of Government if already passed have been indicated in these summaries. Some of these reports are yet to be finalised and should.

LIST OF INDUSTRIAL PANELS.

*(*i*) *Iron and Steel* (*Major*).—Including alloy steels, special steel, tools steel, re-rolled products, fabricated and structural steel, forgings, castings tubes, tin plate, wire, nails and screws, nuts, and bolts.

(*ii*) *Iron and Steel* (*Minor*).—Including surgical instruments,cutlery, small ware such as needles, pins, buttons, etc., hollow-ware and hardware.

(*iii*) *Prime Movers.*—Including steam, crude oil, diesel, petrol and alcohol engines but excluding locomotives, boilers, turbines and generators.

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* Denotes panels which have already drafted reports.

(*iv*) *Automobiles and Tractors.*

(*v*) *Ship-building and Marine Engineering.*

(*vi*) *Electrical Machinery and Equipment.*

(*vii*) *Industrial Plant and Machinery* (*Heavy*) for the manufacture of Textile Sugar, Paper, Mining, Cement, Chemical and other machinery.

(*viii*) *Machine Tools.*

(*ix*) *Light Engineering Industries* including typewriters, accounting machines, calculators, sewing machines, air-conditioning plant, frigidaires, bicycles, hosiery machines, etc.

*(*x*) *Heavy Chemical Industries* to deal with major alkalies and the acids

*(*xi*) *Fine Chemicals* including drugs, pharmaceuticals, photographic materials and synthetic products.

*(*xii*) *Paper Pulp, wood pulp, chemical cotton, paste boards, straw boar etc.*

*(*xiii*) *Plastics and Celluloids.*

*(*xiv*) *Rayon and Artificial Silk.*

*(*xv*) *Sugar, Alcohol and Food Yeast.*

*(*xvi*) *Glass.*

*(*xvii*) *Refractories and Ceramics.*

*(*xviii*) *Soaps and Oils.*

*(*xix*) *Paints and Varnishes,*

*(*xx*) *Electro-chemical industries including calcium carbide and ferro-alloys.*

*(*xxi*) *Wool.*

*(*xxii*) *Silk.*

*(*xxiii*) *Coir, rope and cordage.*

*(*xxiv*) *Hosiery.*

*(*xxv*) *Ready-made clothing.*

*(*xxvi*) *Non-ferrous Metal industries.*

*(*xxvii*) *Leather and Leather Goods.*

(*xxviii*) *Scientific instruments.*

*(*xxix*) *Cotton textiles.*

*(*xxx*) *Cement* }
*(*xxxi*) *Vanaspati* } No Panels were appointed as there was already sufficient material with Government to draw up the plans.

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* Denotes Panels which have already drafted reports.

SUMMARY OF THE REPORT OF THE IRON AND STEEL (MAJOR) PANEL.

The Iron and Steel (Major) Panel was constituted in January 1946. The more important of the Directives issued to them were :—

(*i*) to examine the feasibility of attaining a steel target of 2½ to 3 million tons per annum in the first post-war quinquennium,

(*ii*) to suggest suitable locations for new plants and

(*iii*) to make recommendations regarding the nature and extent of State assistance and control that may be necessary.

2. *Prewar consumption.—Steel.* Pre-war annual consumption of steel was roughly 1 million tons, made up of an average indigenous production of 7 lakh tons and an import of 3 lakh tons.

Pig Iron.—Consumption was about 142,000 tons and exports 541,000 tons

3. *Future demand.*—It is exceedingly difficult to form even an approximate estimate of future demand, more especially of the demand that there may be 5 or 6 years hence. The Panel, however, believe that, apart from the back log demand of nearly 5 or 6 million tons due to the war, the annual post-war requirements will not be less than 2 million tons of Steel. They consider, therefore, that to aim at a target figure of production of 2½ million tons per annum would be desirable in the national interest.

The Panel estimate India's present productive capacity of finished steel of all classes to be about 1,200,000 tons, and they anticipate that additional capacity of about 440,000 tons can be made available during the course of the next 5 years as under :—

	Tons.
Tatas (a scheme of expansion which can be completed within 5 years, raising the total production to about one million tons per annum)	150,000
SCOB (plant capable of expansion by the installation of certain additional plant for which building accommodation now exists)	200,000
Mysore Iron Works	30,000
Rifle Factory, Ishapore	60,000
Total .	440,000

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4. *Target of production.*—Even if all these extensions are completed within 5 years there would still be a deficiency of nearly 1 million tons of Steel per annum. The Panel have accordingly recommended the installation immediately of a new unit with an initial capacity of 500,000 tons, and an ultimate capacity of 1 million tons, and the installation later of a second such unit if circumstances appear to justify it.

5. *Location of new plants.*—Every ton of finished steel requires the transport of 5 tons of raw materials. Owing to the narrow geographical limits within which the principle raw materials are obtainable and the necessity of erecting large units in order to produce Iron and Steel at the cheapest cost, the regionalisation of this industry in its primary form is not feasible or in the public interest. There are, in fact, only two or three localities in India where large new Iron and Steel plants can be economically installed. The Panel have recommended that the first unit should be erected in the C.P. and the second in Bihar near Jamalpur.

6. *Regionalisation of steel processing and consuming industries.* On the other hand, the regionalisation of steel processing and consuming industries is not only possible, but desirable. As one method of securing this objective and preventing the concentration of steel processing industries in certain areas, the Panel have suggested that railway freights on pig Iron and semi-finished steel should be substantially below those payable on finished steel.

7. *Government Control.*—As regards Control of the Industry by Government, the Panel recommend that steps should be taken to regulate (which will probably mean reduce) and stabilize the prices of Iron and Steel which have been steadily rising during the last 12 years. They suggest that prices should not be related to foreign prices, but be based on domestic works costs. Consequently they recommend that exports and imports and construction of new units of production should be permitted only under license.

8. *State assistance to the Industry.*—As regards State assistance the Panel suggest that the existing protective duties should remain on the statute book, but that their levy should be suspended until foreign competition, which is dormant at present, revives and makes their imposition necessary.

The Panel believe that the necessary private capital will be forthcoming to finance the new plants suggested, but if it is not forthcoming Government themselves must immediatey undertake to erect them. A key industry, such as this, cannot wait on private capital or enterprise if they are tardy in coming forward.

9. No orders have yet been passed by Government on the recommendations of the Panel.

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SUMMARY OF THE FINAL REPORTS OF THE PANELS ON HEAVY CHEMICALS AND ELECTRO-CHEMICALS.

A statement is attached summarising the recommendations of the Panels on Heavy Chemicals and Electro-Chemicals regarding targets and locations. The two Panels have throughout worked in close collaboration.

HEAVY CHEMICALS

2. The consumption of Heavy Chemicals depends on the development of the consumption industries, the exact extent of which is difficult to estimate. The Panel are of the opinion that while the targets suggested by them are based on a consideration of the existing conditions, Government may have to modify them suitably when implementing the recommendations, should changed conditions require it.

ELECTRO-CHEMICALS

3. There has been very little development of electro-chemical industries except for one or two areas. The Panel anticipate that with the completion of the hydro-electric projects, abundant power will become available and it will be possible to establish many electro-chemical industries.

Government decision.

4. Government have decided that it is not necessary to lay down targets of production or to indicate where new units should be located.

The other recommendations are under examination.

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PART I—HEAVY CHEMICALS

Name of Chemical.	Present annual production (in tons)	Present annual consumption (in tons)	Five-Year Target (in tons)	Recommendation.
Sulphuric Acid . . .	59,000	55,760	152,600	Fifteen--10 tons per day, units and one Govt. experimental plant for producing 35 tons of sulphuric acid and 12 tons of sulphur per day from gypsum should be installed in addition to one 35 ton per day plant in Madras and one 10 per day plant in Bihar. Balance of 23,600 tons to be allocated after location of rayon plants is decided. Cost of capital equipment : Rs. 37·5 lakhs without the Govt, plant. Location : New plants to be located in Sind, Bombay Bihar and C.P. Foreign experts will be required for Govt. experimental plant. Indian students to go to UK and USA to specialise in Sulphuric Acid industry.
Sulphates				
Sulphate of Alumina	10 to 17,000	20,500	38,000	Raw materials available in India. Protection should be given.
Magnesium sulphate.	35,00 4,000	...	...	Can be increased if necessary. Present production sufficient.
Iron sulphate . .	2,000	...	...	do.
Copper sulphate .	900	...	2,000	Possibility of manufacture from imported copper pyrites should be examined and the slender copper resources of India should be reserved for more important purposes.
Sodium sulphate .	2,000	...	4,000	No action necessary in view of large deposits of salt discovered in Jodhpur.
Other sulpher Compounds				
Sodium sulphide .	...	3,700 (demand)	7,000	Jodhpur State who have a scheme for the manufacture of this chemical should be addressed to expedite its manufacture.
Sodium thiosulphate (hypo).	...	500 (demand)	...	No action as local manufacture will meet demand.
Sodium hydrosulphite (Hydros).	...	1,600	25,00 3,000	As cheap Zinc and Sulphudioxide necessary for manufacture of this chemical are not locally available, the possibility of developing alternative processes should continue to be investigated.

PART I—HEAVY CHEMICALS—(*continued*)

Name of Chemical	Present annual production. (in tons)	Present annual consumption (in tons)	Five-Year Target (in tons)	Recommendations.
Alkali Industries				
Common Salt . .	...	...	...	To be supplied at low cost to chemical industries.
Lime	...	...	...	Installation of modern lime kilns in different areas should be undertaken by Provinces so that high grade lime may be supplied to sugar and other chemical industries.
Soda Ash . .	74,000 capacity, actual production much less	107,500	270,000	Four new plants recommended —50,000 tons plants—one each in Sind and Bihar 30,000 tons plants—one each in C. P. and South India. Foreign technical advice necessary. Indian Chemists and Engineers should go for training to UK and USA.
Caustic soda . .	12,600 (capacity)	54,000	133,000	One 11,000 ton mercury cell plant should be located in Bihar and others distributed in different parts of India: 30,000 tons of DDT and gammoxane should be manufactured from the chlorine produced and this should be aimed at as an eventual annual target. Government should employ experts to visit plants and give technical advice. Indian Chemical engineers should be trained in UK and USA. Such protection as will not penalise the consuming industries should be given.
Potassium chlorate .	2,000	2,000	...	A plant of 1,000-1,500 tons should be installed in one of the alkali plants. Potassium chloride, the raw material should be made purer.
Hydrochloric Acid .	2,500	...	...	For any extra production required, manufacture from hydrogen and chlorine should be taken up.
Zinc Chloride . .	...	2,000 (imported)	...	Manufacture can be taken up only when cheap zinc residues become available in sufficient quantities.
Magnesium chloride .	...	7,000 (demand)	...	Manufacture more than sufficient—no action is necessary.

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PART I—HEAVY CHEMICALS—(*continued*)

Name of Chemical	Present annual production (in tons)	Present annual consumption (in tons)	Five-Year Target (in tons)	Recommendations
Calcium chloride .	...	1,000	...	Present capacity more than sufficient to meet demand.
Potossium chloride .	...	3,000 (imported)	...	Existing manufacture from bitterns and Reh deposits to be increased.
Barium chloride .	...	...	...	1,000 to 1,500 tons per year should be manufactured in one of the alkali plants.
Nitric Acid . .	...	1,300 (demand)	4,000	Production in Ordnance Factories should be permitted to be utilised for civilian purposes.
Potassium Nitrate .	15,000	...	...	Indigenous production sufficient to meet the demand if the industry is organised properly.
Ammonia . .	1,500	...	...	No new plants are necessary but 12,000-15,000 tons of ammonia should be made available at a low price from one of the two plants that are being installed at Sindri and Almaye.
Ammonium chloride .	Negligible	2,000 (imported)	4,000	No difficulty in achieving the target when soda ash manufacture is developed or when more hydrochloric acid becomes available from electrolytic chlorine.
Urea	...	...	10,000	A plant of 10,000 tons capacity per year should be installed at Sindhri.
Phosphates . .	...	...	100,000 superphosphates.	An experiemntal plant for manuacture of 10 tons of phosphorous per day and of concentrated phosphates by the electro-thermal process should be installed by Government.
Calcium carbide .	...	7,000 (demand)	7,000	One 2,000-2,500 tons plant should be installed in South India, besides 5,000 ton plant in Bihar for which import licence has already been granted.
Magnesia	...	500-600 (imports prewar)	...	One firm has started production. No further action is necessary.

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PART I—HEAVY CHEMICALS—(*concld.*)

Name of Chemical	Present annual production (in tons)	Present annual consumption (in tons)	Five-Year Target (in tons)	Recommendation
Arsenic oxide	...	250 (imported)	...	The Chitral State which has deposits should be approached by Government to improve communications to enable the chemical to be brought into India cheaply.
Borax	...	1,500 (imported)	...	Borax resources should be exploited.
Dichromates	3,500	6,000 (demand).	...	Increased production not necessary and there is a danger of over-production. Protection will probably be required.
Alcohol	...	...	...	A fraction of the production of 26 million gallons of alcohol recommended by the Sugar Panel should be made available for chemical industries at a very low price and free of duty.
Acetic acid	300 (capacity)	600-700 (imported)	...	Estimated demand 600-700 tons per year. No action is necessary since an import licence has been granted for a 2 ton per day plant.
Glycerine	2,500	...	...	No action is necessary. Production can be increased without difficulty when required.
Methyl Alcohol & Formoldehyde.	60	...	...	Manufacture should be taken up at Sindhri.
Acetone	1,000 (capacity)	...	...	Production by fermentation of molasses should be taken up.

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PART II—ELECTRO-CHEMICALS

Name of Chemical	Present annual production (in tons)	Present annual consumption (in tons)	Five-Year Target (in tons)	Recommendation
Hydrogen Peroxide	No production.	...	...	One plant of 350-400 tons capacity for which import licence has been granted is expected to be installed in Bombay. More plants should be installed when there is a definite demand. Mills that have electrolytic generator equipment should utilise them for the manufacture of hydrogen peroxide.
Carbon Disulphide	...	...	...	8760 tons per year required by the rayon industry should be prepared in the rayon factories themselves.

PART II—ELECTRO CHEMICALS—(*continued.*)

Name of Chemical	Present annual production (in tons)	Present annual consumption (in tons)	Five-Year Target (in tons)	Recommendations
Artificial abrasives	...	...	...	Mostly imported. Furnaces with a capacity of 2,000 tons for each of the abrasives, silicon, carbide and fused alumina, should be installed near a source of power.
Artificial graphite and electrodes.	...	...	...	Small quantities of carbon electrodes are being made at present in India. Government itself should instal one or two plants for manufacture of graphite electrodes if manufacture by the company started in Travancore does not materialise within a reasonable length of time.
Ferromanganese	2,000	...	...	Sandur State where the ore is available is considered suitable for manufacture of ferro-manganese in large quantities.
Ferrosilicon	2,000	4,000	40,000	Mysore is planning production upto 4,000 tons per annum—no furtheraction is necessary.
Aluminium ...	7,500 (capacity)	...	15,000 20,000	Another aluminium plant of 5,000 tons immediate capacity ultimately to be raised to 3,000 to 10,000 tons should be installed near a source of power supply in addition to the two firms in India manufacturing aluminium. Special concessions such as cheap transport and protection should be given for the next five years after which the industry may be expected to stand competition.
Magnesium	No production.	...	Negligible	Government should (*i*) instal a small plant of 3-5 tons a day by Pidgeon process, (*ii*) purchase and stock 1,000 tons of the metal for supply to Indian manufacturers at cost price.
Copper	6,000	..	10,000	Deposits of Jaipur, Sikkim, etc. should be examined in order to increase production. Copper pyrites should be imported to manufacture copper and sulphuric acid. One 5,000 ton unit for manufacture of primary metals from scrap should be established at one of the sea port towns—scrap for this purpose should be imported free of duty.

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PART II—ELECTRO CHEMICALS—(*concluded*)

Name of Chemical	Present annual production (in tons)	Present annual consumption (in tons)	Five-Year Target (in tons)	Recommendations.
Electro-plating	...	...	...	Large plants for electro-plating industrial equipment, should be installed.
Storage batteries ...	...	75,000, Batteries (Imported)	100,000 125,000 Batteries.	The existing five factories can supply the requirements if reasonable protection is given.
Dry cells	...	...	...	Indigenous raw materials are not being used. This must be done after some processing if necessary, Possibility of manufacture on a cottage industry basis as in Japan should be examined;

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SUMMARY OF THE REPORT OF THE PANEL ON FINE CHEMICALS, DRUGS AND PHARMACEUTICALS.

Objective.—The aim is to make the country self-sufficient in regard to fine chemicals, drugs and pharmaceuticals within the next fifteen years and to make all essential drugs available to the masses.

2. *Development of the industry.*—Though the industry developed considerably during the present war, it is still in its infancy. Synthetic drugs produced in this country are mostly made out of imported chemicals and to place the manufacture of drugs and pharmaceuticals on a firm footing, it is of fundamental importance that fine chemicals should be produced in the country in requisite quantities.

3. *Raw materials.*—The raw materials, from which drugs and fine chemicals are derived, consist of various inorganic chemicals, coal and wood distillation products, fermentation products, petroleum products, animal and vegetable products and synthetic chemicals derived from aliphatic chemicals. The panel consider that it should be possible to produce sufficient quantities of these materials in the country provided that (*i*) the Heavy Chemical Industry is expanded, especially the manufacture of chloro-sulphuric acid, sodium and chlori es of phosphorus, (*ii*) the manufacture of intermediates from the distillation products of coal is immediately taken in hand and (*iii*) the manufacture of adequate quantities of solvents and crude vegetable drugs of proper quality is well organised.

4. *Future production and targets.*—The panel has fixed targets of production to be achieved within the next 10 years for about 100 different kinds of Drugs, Vitamins, Harmones, Liver Extracts, Insecticides, Refrigerating Chemicals, Photographic Chemicals, Fine Chemicals, Solvents and other miscellaneous articles. Amongst these, the panel considers that there are some essential items for which the need is very great and urgent and upon the production of which effort should be concentrated during the next five years. In their view a start should be made with the production of these essential drugs and chemicals, utilising the raw materials already available in the country and importing those which are not at present available. In this way the country will be provided with a supply of the essential drugs from the very start at prices which will compare favourably with imported ones, and what is equally important a demand will also be created for basic chemicals, and thus an impetus given to their production in this country. The present production of these essential items and the targets to be achieved by the end of ten years are indicated in the table appended.

5. *Location.*—The Panel have made no specific recommendations regarding the location of this industry.

6. *Nature of Government assistance required.*—The Panel consider that the industry will require considerable assistance from Government and make a number of recommendations in this regard :—

(*i*) For the production of certain vital drugs such as Pencillin, Mepac ine an the Sulphanomides, the State should take the initiative and put up pilot plants The State should also initiate production of coal tar intermediates either directly themselves or through private enterprise.

(*ii*) Protection should be afforded to this nascent industry; customs duty on raw materials, semi-manufactured goods and capital goods required for the industry should be remitted for 5 years, railway freights on the raw materials and on the finished goods should be reduced; and provincial excise rules should be rationalised so as to facilitate the movement of spirituous preparations from one part of the country to another.

(*iii*) Research on fundamental problems connected with the manufacture of fine chemicals, drugs and pharmaceuticals should be liberally subsidised.

(*iv*) Scientists and technicians should be trained for developing the industry in this country. Individuals should not be sent abroad for vague study, but only when some definite project has been decided upon and their specific function in it ascertained.

(*v*) The development of the fine chemicals, drugs and pharmaceutical industry depends to a great extent on the production of heavy chemicals, coal distillation products, and organic solvents, etc., and the production of these materials is linked up not only with the drugs and fine chemicals industry but also with the dye-stuffs artificial fibre and plastic industries, etc. A carefully integrated plan is therefore required to be drawn up on the basis of the reports of several different panels and for this purpose Government should set up a Technical Planning Commission.

(*vi*) To put the Shark Liver Oil Industry on a firm footing, a Central Board representing the relevant departments of the Government of India, the departments of Fisheries of the maritime provinces and non-official experts with a whole-time executive, should be set up.

7. *Orders of Government*—The report has not yet been finalised and no orders have yet been passed by Government on it.

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Name	Present Production	Target in 10 years
Vegetable drugs		
Quinine	100,000 lbs.	2,000,000 lbs. per annum within 15 years.
Pyrethrum	(Mainly imports)	50,000 tons of dried pyrethrum flowers per annum.
Emetin	(Imports)	2,000 lbs. per annum.
Strychnine	15,000 lbs.	16,000 lbs. per annum.
Santonin	2,000 to 3,000 lbs.	3,000 lbs. per annum.
Ephedrine	3,000 lbs.	5,000 lbs. per annum.
Caffeine	20,000 lbs.	30,000 lbs. per annum.
Morphine	Nearly 2,000 lbs.	3,000 lbs. per annum.
Synthetic drugs		
Sulpha drugs	(Not known)	500,000 lbs. per annum.
Mepacrine	...	160,000 lbs. per annum.
Paludrine	...	Target not fixed.
D. D. T.	(Very little)	30,000 tons p.a.
P-carbaminophenyl Arsenic acid (carbarsone).	2,000 lbs.	50,000 lbs. p.a.
Sulphurs phenamine and Neoarsphenamine.	(Not known)	50,000 lbs. per annum.
Anti-biotics		
Penicillin	(Nil)	1,000,000 million units p. a.
Streptomycin	(Not known)	as much as possible.
Vitamins		
Vitamin A	35,000 gallons	1,000,000 gallons of Shark liver oil of potency 6,000 units per gramme.
Vitamin B (group) Vitamin C Vatamin D		Targets not fixed. The Technical and Planning Panels of the Food Department are dealing with this question.

SUMMARY OF THE REPORT OF THE PANEL ON PAPER, PULP, BOARD AND CHEMICAL COTTON INDUSTRIES

Target of production.—Significant progress has been made by the Indian paper industry during the war. The number of mills increased from 10 in 1938 to 16 in 1944, and the output of paper from 53,000 to 90,000 tons. Similarly the production of Board has increased from 8,000 to 24,000 tons. The Panel anticipate increased demand for both Paper and Board in the next few years, and they recommend, therefore, a large expansion of the industry as shown in the table below :—

	Present indigenous production (tons)	Target of indigenous production (tons)		Anticipated annual consumption (tons)	
	1944	1951	1956	1951	1956
All types of paper other than news print.	90,000	169,000	302,000	220,000	312,000
Newsprint	Nil.	20,000	40,000	60,000	100,000
All types of boards including straw-boards.	24,000	75,000	119 ,000	75,000	119,000

2. *Location of Paper and Board mills.*—The principal seat of the Indian paper industry is the Hooghly district of Bengal where there are 4 factories which produce more than 50% of the present production. The remaining factories are more or less evenly distributed throughout the country. The Panel consider that a minimum economic unit for manufacturing ordinary classes of paper is one producing 3,000 tons per annum and that existing units below this capacity should be encouraged to expand their production. They recommend accordingly that 40-50,000 tons of the projected increase of paper production, other than newsprint, should be allocated for the expansion of existing mills but they think that in Bengal expansion of mills to produce the same varieties of paper as are being manufactured there at present should be discouraged.

As regards new mills, they recommend that no new ones should be set up in Bengal, but that the following areas should be recognised as suitable for their establishment :—

(a) *Paper.*—Madras, Bombay, Assam, Punjab, Central Provinces and Berar, Central Indian States, Rewa State, Eastern States Agency, United Provinces (for cheap quality paper), Bihar (for cheap quality paper).

(b) *Newsprint.*—Kashmir, Tehri Garhwal, Punjab.

(c) *Boards.*—Bombay, Bengal (near Calcutta), Madras, Central Provinces and Berar, Orissa, Punjab, United Provinces, Hyderabad State.

3. *Nature of Government assistance required.*—The Panel consider that the projected increase of paper and board production (*other than newsprint*) can be left to private capital and enterprise and that no direct financial assistance from Government will be needed.

Protection.—The present protection afforded to the paper industry should however, be continued and its scope extended so as to include varieties of paper and board that are unprotected at present. The following assistance should also be given :—

(a) *Research.*—A survey should be made of all cellulose raw materials and the Paper Pulp section of the Forest Research Institute, Dehra Dun, should be reorganised and expanded into a Pulp and Paper Research Centre (*cf.* recommendation of the Panel on Rayon), the cost to be shared by Government and the Industry.

(b) *Training.*—In addition to technicians trained at the Dehra Dun Centre, at least 6 young Indians should be sent abroad every year for higher training.

4. *Financial assistance for newsprint.*—The establishment of newsprint manufacture in India is most essential. The necessary soft woods exist in abundance according to the Panel in Kashmir, Punjab and Tehri Garhwal forests and the possibility of their economic transport to the plans should be explored. In case private capitaldoes not come forward to start this industry the Panel recommend that Government should themselves take up newsprint manufacture.

5. *Hand-made Paper.*—The Panel recommends that the production of hand-made paper should be expanded by organising the industry on systematic lines for the production of special types of paper. Semi-mechanisation of some of the processes s essential.

6. *Chemical Cotton.*—The Panel recommends that the production and standardised grading of cotton linters should be developed with a view to the manufacture of 5 million lbs. of chemical cotton per year. But the establishment of industries which use chemical cotton, should come first (*cf.* the report of the Panel on Rayon).

7. *Government Orders.*—Government have accepted the Panel's recommendations regarding targets of production and location of mills, but have not yet passed any orders on the other recommendations.

SUMMARY OF THE DRAFT REPORT OF THE PANEL ON PLASTICS AND CELLULOID INDUSTRIES

1. PLASTIC INDUSTRY

1. *Present position.*—The present world production of plastic is estimated at about 2,240 million lbs. annually. The *per capita* consumption in India in 1937 was 0·003 lbs. as compared to 1·500 lbs., 1·450 lbs. and 1·000 lbs. in Germany, U.S.A. and England respectively, India possesses the resources necessary for the production of the raw materials required for the synthetic plastic industry and has in addition an abundance of naturally occurring resinous materials. The Panel therefore feel that with the development of the chemical industry and the aid of extensive research and proper standardisation of products, it will be possible to establish a flourishing plastic industry. The consumption of plastic goods is bound to increase rapidly in the post-war period.

2. The industry should be developed on the following lines :—

(a) *Immediate expansion of the Plastic moulding industry.* :

Target of production.—The moulding of plastic articles has been successfully undertaken in India in recent years. There are at present 75 presses capable of handling about 2,000 tons of moulding powder per annum ; but most of the presses are manually operated and out of date. The Panel recommend that the moulding industry should be expanded to use about 3,000 tons of moulding powders annually during the next five years and that types of automatic presses should be imported. They also give a long list of articles proposed to be manufactured, *e.g.*, combs, but tons, trays, etc.

Location.—Moulding plants may be located in any part of the country preferably near trade centres. A moulding plant utilising 100 tons of moulding powders per annum is considered a minimum economic unit under Indian conditions. Two central Die making establishments should be set up, preferably at Bombay and calcutta.

Use of imported moulding powders.—For the present the industry will have to use imported moulding powders. The Panel recommend (with one dissentient) that the import duty on moulding powders should be reduced to 50%.At present duty on finished plastic goods and moulding powders is the same, *viz.*, 30% which the Panel consider unsatisfactory.

Organisation of the Industry.—The Panel consider that the expansion of the plastic moulding industry can be left to private enterprise ; but if private capital is not forthcoming to instal Die-making plants Government should subsidise the undertaking.

(b) *Development of the moulding powder industry in India.*

Target of production.—The production of the following synthetic plastic moulding powders should be started as soon as the basic chemicals required for their manufacture are available at economic rates and the demand is sufficiently large to justify the erection of an economic unit for each type :—

(*i*) Phenol-formaldehyde (1500 tons),

(*ii*) Cellulose Nitrate (2,000 tons),

(*iii*) Urea-formaldehyde (500 tons),

(*iv*) Cellulose acetate (1,000 tons).

For a long range industrial development plan the production of the following synthetic plastics should be undertaken.

(1) Melamine. (2) Furfural-phenol. (3) Nylon. (4) Polyethylene. (5 Alkyd. (6) Vinyl. (7) Acrylate. (8) Silicone.

(*c*) *Development of naturally occurring resins for use in the plastic Industry.*—There are bright prospects of developing the naturally occurring resins for use in the industry. Lac, Bhilawan, Cashew shell liquid, etc. are some of the most promising materials available in the country. Intensification of co-ordinated research on their utilisation is strongly recommended. A survey regarding the availability of Bhilawān, an important raw material for the plastic industry, should be undertaken.

(*d*) *Development of the Filler Industry.*—A synthetic or a natural resin is very seldom in a condition suitable for direct moulding and requires the addition of filling materials. Wood flour is one of the most important of these. The Pane recommend that its manufacture should be undertaken in India and an annual production of 1,500 tons should be aimed at.

(*e*) *Research.*—The plastic industry should be developed in India with the aid of extensive research both of synthetic and naturally occurring materials. It is understood that the proposed National Chemical Laboratories of the Council of Scientific and Industrial Research are going to have a separate division for research on high polymers and plastics. The Panel is of the opinion that all problems of the synthetic plastic industry should be tackled by this section which should be fully equipped with modern apparatus and pilot plants etc. The proposed two cellulose Research Institutes, recommended by the Rayon Panel, should also deal with research problems of the plastic industry using cellulose raw materials.

(*f*) *Technical Training.*—Government should send abroad two Indian technicians every year for training in dye designing for the next five years.

II. RAW FILM MANUFACTURE.

1. *Present position.*—The Indian film industry claims to occupy one of the foremost places among the varuous industries in the country. The pre-war imports of motion picture raw film were about 80 million ft. per year .Consumption is likely to increase rapidly in the next few years.

2. *Post-war Target.*—The Panel recommend that one factory manufacturing 50 million square feet of raw film of all types should be established during the next five year period.

3. *Stages of development.*—They recommend that the development of the raw film industry should be in the following stages :—

(*a*) coating and processing of imported film base ;

(*b*) manufacture of film base in the country using imported chemicals ;

(*c*) manufacture of the necessary chemicals required in the country.

4. *Location.*—The Panel is of the opinion that a site near Poona is likely to be suitable for setting up a raw film factory. It is however felt that the actual selection of a site should be left to foreign technical experts.

5. *Other important recommendations.*—(i) *Foreign co-operation.*—Since the raw film manufacture is a highly technical and specialised industry and the processes of manufacture employed are patented secrets of a selected number of foreign manufacturers, co-operation with some reputed foreign manufacturers is considered essential. The Panel are of the opinion that the Government should take the initiative in this direction and arrange with some foreign firm in the U. S. A., Germany or Belgium for help and assistance in establishing the industry in India. For this purpose it may be necessary to sponsor a joint venture with foreign manufacturers.

(ii) *Government Assistance.*—The Panel recommend that the Government should give adequate protection to the industry in the form of subsidy, bounties or by any other means which will not adversely affect the motion picture producing industry. In view of the fact that the industry will use imported chemicals in the initial stages the Panel feel that the import of the chemicals used specifically for raw film manufacture should be allowed duty free. The draw back rebate system is recommended as suitable for this purpose. The Panel further recommend that concessional railway rates should be fixed for the movement of raw materials required by this industry and its finished products.

(iii) *Technical Trainings.*—The Panel recommend that the Government should arrange to send at least 20 young Indians abroad for specialised training in raw film manufacture. They should be trained for a period of two years in factories manufacturing raw films.

6. The report is being finalised.

SUMMARY OF THE PANEL REPORT ON ARTIFICIAL SILK AND RAYON

The report of this Panel has not yet been finalised. This is therefore a summary of the *draft* report.

1. *Consumption.*—India's consumption of rayon rose from negligible quantities in 1923 to 60-70 tons per day immediately before the war. There was no indigenous production, and the bulk of the imports of rayon, which in 1939-40 amounted in value to Rs. 459 lakhs, came from Japan. A steady increase in consumption is to be expected in the coming years owing to increase in population and a rising standard of living.

2. *Target of expansion.*—The Panel recommended the establishment of the rayon industry in India, where almost all the raw materials required for the manufacture are, or can be, made available in abundance. There is room, in their opinion, for 6 or 7 factories immediately (each with a productive capacity of 10 tons per day) and for 4-5 more later. At least one factory should be for the manufacture of acetate rayon and the rest for viscose rayon. Capital goods worth about Rs. 10 crores will be required for these seven factories.

3. *Location of Factories.*—The rayon factories should be evenly distributed throughout the country with due regard for such essential factors as proximity of raw materials, markets for finished products, power, facilities for disposal of effluent communications, etc. The Panel consider certain localities in Bombay, C. P., the Punjab, Bengal, Madras, Orissa, Mysore, Travancore, Rewa and Tehri Garhwal (or British Garhwal in the U. P.) suitable for the erection of rayon factories.

4. *Nature of Govt. assistance required.*—The Panel consider that the rayon industry should be under private ownership and control; but they recognise that for its successful establishment in India, considerable Government assistance and initiative will be required. In regard to this they have made a number of important recommendations :—

(i) Cellulose is the main raw material required for the manufacture of rayon and India is rich in cellulose bearing materials—cotton, bamboo, wool, bagasse, hemp, reeds, etc. But extensive research and working out of technical details will be required before pulp of standardised quality and suitable for rayon manufacture can be prepared from these indigenous raw materials. The panel has therefore recommended that in the initial stages imported wood pulp should be used for rayon manufacture, but that at the same time the use of indigenous raw materials should be developed and encouraged. This will entail research work on bamboo and bagasse and organisation of the production of cotton linters. The Panel recommend in this connection.

(*a*) that an immediate survey be made through the Inspector General of Forest of all cellulosic raw materials in the country,

(*b*) that Government should set up a semi-commercial pilot plant of a capacity of about 400 lbs. per day for preparing pulp and about 100 lbs. per day for spinning yarn. This plant will materially assist in the solution of technical problems connected with the establishment of the industry. and

(*c*) that two Cellulose Research Institutes should be established, one concentrating on the manufacture of different kinds of pulp, and the other on the utilisation of these pulps in various consuming industries.

(ii) If sufficient private capital is not forthcoming to establish the rayon industry Government should help by subscribing a certain percentage.

(iii) Government should promise to give adequate protection to the industry n the form of protective duties, bounties, a subsidy, or any other means.

(iv) Import duties on sulphite wood pulp, which may initially be used for rayon manufacture, should be remitted and duties on chemicals used for rayon manufacture reduced. The industry should also be relieved of import duties on machinery, until prices come down to a reasonable level.

(v) The Government of India should send 12 young Indians (6 chemists and 6 engineers) abroad every year for specialised training in rayon manufacture.

5. *Other important recommendations.*—(*a*) In view of the large quantities of chemicals needed in the manufacture of rayon, the Panel have stressed the importance of close co-ordination of their recommendations with those of the Heavy Chemicals Panel.

(*b*) The Panel have also emphasised that foreign co-operation in technical matters will be essential in the initial stages.

6. *Orders of Government.*—Government have decided that it is not necessary to lay down any targets of production or to indicate or restrict the location of new units. As regards the other recommendations of the Panel, no orders have yet been passed.

SUMMARY OF REPORT OF PANEL ON SUGAR-ALCOHOL AND FOOD YEAST

I. SUGAR.

Target.—The average annual production of sugar in India during the period from 1939-40 to 1943-44 was 1,084,000 tons. The Panel estimated that the present effective demand for sugar was about 50% higher than in 1939. Accordingly, they recommended a target of 16 lakh tons per annum to be reached by 1950, of which 1,550,000 tons was for internal consumption and 50,000 tons for export.

Government's decision.—Government, however, considered the target too low as internal consumption is certain to increase very substantially , and accordingly they decided to increase the target to 18½ lakh tons.

The Panel proposed to achieve the increased production which they recommended as follows :—

(1) By increasing supply of sugarcane to existing factories (*e.g.*, by construction of roads in existing factory areas or shifting certain units to more suitable sites)	170,000 tons.
(2) By expansion of existing uneconomic units	100,000 tons.
(3) By installation of new units	200,000 tons

2. *Location.*—The proposals regarding the expansion of existing units are :—

(*a*) that factories below 250 tons crushing capacity per day should not be allowed to expand,

(*b*) that factories with crushing capacity of 250 to 800 tons per day should be allowed to expand to the latter capacity,

(*c*) that no extension should be allowed to factories with more than 800 tons crushing capacity.

As regards new units, the Panel has recommended that as U. P. and Bihar between them have already got 103 out of 154 vacuum-pan factories and produce over 70% of the total sugar produced in the country, all new units should be installed in areas other than U. P. and Bihar. 15 units, each with an annual capacity of 10 to 12 thousand tons, have been recommended for installation—4 each in Madras, Bombay (including Deccan States), Punjab (including Punjab States), and Bengal, and one each in Assam , Orissa and Sind, besides the five new projects which had already been approved by Government— one each in Travancore, Hyderabad Baroda, N. W. F. P. and Bihar.

Government's Decision.—These recommendations of the Panel have been accepted by the Government except that the I. & S. Department is to have the discretion to agree to the setting up of one or more new units in the U. P. and Bihar if the adoption of such a course is found to be of practical advantage.

It has been decided that both the new units and the expansion of existing factories should be sanctioned subject to the condition that they make all their arrangements and place final orders for machinery within 30 months of sanction.

The allocation to Provinces and States of the extra 250,000 tons, which Government's decision to increase the target makes available, is under examination.

3. *Capital Goods Required.*—The total estimated cost of machinery required is Rs. 11 to 12 crores. The Panel have recommended that a central expert organisation should be set up for ascertaining the requirements with a view to classifying and consolidating them.

4. *Government Control and Assistance.*—The following are the main recommendations made by the Panel regarding Government control and assistance.

(*i*) *States Control.* The industry should be privately owned, but the State should control production, prices and distribution ; the control should be exercised through an official controller assisted by official and non-official interests and should extend to other matters such as conditions of labour, etc., all existing provincial legislation dealing with these matters should be abrogated ; legislation to provide for the licensing of all existing and new sugar factories should be undertaken.

(*ii*) *Marketing Organisation.*—The actual distribution of sugar should be by an organisation the membership of which should be compulsory for all sugar factories.

(*iii*) *Price of Sugar.*—Measures should be taken to reduce the price of sugar by increasing the efficiency of factories, etc.

(*iv*) *Tariff Policy.*—Tariff protection should be continued for the next five years pending consideration by the Tariff Board.

(*v*) *Excise duty.*—The protective duty should be gradually reduced in order to lower the price of sugar for consumers.

(*vi*) *Bounties and Expert Advisory Services.*—These are not necessary. The existing Institute of Sugar Technology should be able to improve technical efficiency by inspection of factories, etc.

(*vii*) *Research.*—Research should be intensified. The present Central Government grant of 1 anna per cwt. from excise duty should be increased to 4 annas per cwt.

(*viii*) *Indian States.*—Indian States should participate in the operation of all-India control of sugar on the same basis as the British Indian Provinces and their policy in regard to production, distribution, prices, etc. should be in line with all-India policy.

The above recommendations are being examined by Government.

II. POWER ALCOHOL

1. *Target.*—The pre-war consumption of petrol in India was 100 million gallons and production 17 million gallons. Post-war requirements are estimated at 120 million gallons. The target production of sugar in the post-war period will yield sufficient molasses for the production of 26 million gallons of alcohol, of which 20 million gallons should be power alcohol.

Government's Decision.—Government have accepted the recommendation that the target should be 20 million gallons plus such figure as would be justified by the raising of the sugar target by 250,000 tons.

2. *Location.*—The Panel recommended the setting up of 20 standard distilleries of one million gallons capacity each ; 11 of these distilleries to be located in U. P., 4 in Bihar, 2 in Bombay, 2 in Madras and Orissa and one in Bengal.

Government's Decision.—Government have decided that (i) the total number of distilleries should be increased in view of the increased target for power alcohol and that these additional distilleries should be established in Provinces other than U. P. and Bihar, (2) the Provinces should be advised that a distillery with one million gallons capacity would be the most economic unit but that local conditions may justify a higher or lower capacity unit and (3) detailed provincial allocation should be revised in the light of all relevant factors. Action in this regard is being taken.

3. *Other Recommendations.*—The Panel made the following other main recommendations :—

(*i*) *Proportion of alcohol and petrol.*—A mixture of 20% alcohal and 30% petrol is the most suitable and should be made compulsory for such areas as are notified from time to time.

Government have accepted the recommendation and noted that Central or Provincial Legislation will be necessary to give effect to it.

(*ii*) *Ownership.*—Each distillery should be owned by a group of sugar factories capable of meeting its molasses requirements.

Government did not accept this recommendation and considered that complete freedom in this regard should be allowed.

(*iii*) *Licensing.*—All distilleries should be licensed.

(*iv*) *Survey of the Existing Distilleries.*—A careful survey should be made with a view to necessary extensions, replacements and shifting.

(*v*) *Central Control.*—The production, distribution, etc. of Power Alcohol and Molasses should be under central control to be exercised by an Alcohol Commissioner who should be assisted by an expert adviser.

(*vi*) *Excise Duty.*—A duty lower than that on petrol should be charged on power alcohol. No excise duty should be charged on industrial alcohol used for industrial purposes other than motor fuel.

(*vii*) ***Inter-Provincial Excise Barriers.***—All inter-provincial excise barriers regarding labelling, etc. of industrial alcohol and spirituous preparations should be removed and the whole of India treated as one unit.

The recommendations at (*iii*) to (*vii*) above are being examined by Government.

III. FOOD YEAST.

The Panel is of the opinion that the main difficulty regarding Food Yeast is not connected with the production but with the consumption of the article. The Panel recommend that Government should, at the outset, encourage sugar factories or other manufacturers to put up small units with a production capacity of one ton per day.

Government are considering the installation of a Food Yeast factory of a capacity of 3,000 tons per annum.

SUMMARY OF THE DRAFT REPORT ON GLASS INDUSTRY

1. *Present position.*—The Glass Industry in India represents diverse types of industrial organisation, varying from the cottage-industry type to large scale units controlled both by proprietory and managing agency systems. The size of the average factory is not very large and the number of factories with capital exceeding a few lakhs is comparatively very small.

The reasons for the present backward state of the industry are (i) unfair competition by well established foreign industries (ii) the failure of the State to extend tariff protection on an adequate scale (iii) lack of sound internal organisation and (iv) low technical standards and slow progress in technical developments.

2. The types of articles at present produced by the Indian Glass Industry can be classified under the following heads :—

(1) Bangles (2) Hollow ware including Lampware and Table-ware (3) Bottle ware (4) Sheet glass (5) Pressed ware and fancy goods (6) other varieties including scientific glassware, rods, test tubes, glass shells for electric bulbs, etc.

3. *General objective.*—The general aim should be to raise the scale and quality of output of those sections of the glass industry which have already been developed in India so as to meet the whole of domestic requirements, and to initiate without delay production in other lines , *e.g.*, plate glass and optical glass.

Contd......

Targets.—The production and target figures for the different sections of the glass industry are given below :—

Section	Pre-war production 1937-38	Pre-war imports 1937-38	Present production capacity	Target for the first 5 year period	Remarks
Bangles	Rs. 80 lakhs (18,000 tons).	Rs. 29·3 lakhs	18,000 tons	10% increase *viz.* 1,800 tons.	Development should be particularly in fancy bangles.
Beads and False Pearls	...	Rs. 18·9 lakhs (estimated 4,200 tons).	120 tons	4,200 tons	Proper technical training should be arranged with a view to increase domestic output to meet the entire requirements.
Bottles and Phials	Rs.10 lakhs (estimated 40,000 tons).	Rs. 29·3 lakhs	100,000 tons	100,000 tons	No increase in output necessary but quality has to be improved.
Lampware	*Rs. 20 lakhs*	*Rs. 6·9 lakhs* (9,500 tons)	10,000 tons	14,000 tons	...
Tableware	*Rs. 8 lakhs*	*Rs. 6 lakhs* (5,000 tons)	5,000 tons	7,500 tons	...
Sheet Glass	4 million sq. ft.	24 million sq. ft.	20 million sq. ft.	42 million sq. ft.	Increased requirements of the home market will be met without import.
Pressedware	*Rs. 2 lakhs*	*Rs. 5 lakhs* (2,500 tons)	2,000 tons	4,000 tons	...
Plate and Flowered Glass	...	3·7 million sq. ft.	*nil*	3·7 million sq. ft	...
Scientific Glass apparatus	Negligible	Rs. 1·9 lakhs	Negligible	Rs. 10 lakhs	Particular attention should be paid to maintaining quality and precision.
Glass shells	...	...	14 million pieces	25 million pieces	...
Optical Glass	...	...	*nil*	No definite target fixed.	No statistics available. This is a vital strategic industry and must be started under Government auspices.

The new lines in which production should be initiated or developed are Beads and False pearls, plate glass, and Optical glass. The Panel have not made any specific recommendations as to the number and type of manufacturing units required for setting up these sections of the industry.

4. *Location.*—A rational localisation policy has to be formulated and enforced through a licensing system, so as not to sacrifice the most economic production and efficient utilisation of the resources and transport facilities. Nearness to market should be a greater determining influence than nearness to raw materials in view of the fragile nature of glassware.

5. *Organisation of the industry.—Ownership.* The glass industry should not be owned by Government except in so far as this may be necessary for the establishment of the Plate glass and Optical glass sections of the industry. For those sections private capital is not likely to be forthcoming and Government will have to provide at least half the capital and also enlist the co-operation and technical assistance of foreign firms. The Canadian model of co-operation with foreign firms should be studied.

Cottage Industry.—There is large scope for development on a cottage industry basis of bangle-making , bead-making, table-blowing etc.

At the same time there is urgent need for greater mechanisation in the large-scale section of the industry.

Industrial Associations.—Representative Industrial Associations should be established. Government should grant recognition to the All-India Manufacturers' Federation which should be consulted in matters of policy affecting the interest of the Industry.

Constitution of a Consultative Committee.—A small Consultative Committee consisting of the Chairman of the Panel, a representative of the Glass Manufacturer's Federation and a representative of the Central Glass and Ceramics Research Institute should be constituted, as the recommendations of the Panel are of such a character that for some years to come, occasional consultations will be necessary.

6. *Government assistance and control.—Survey.* A comprehensive survey of raw materials either under direction of the Geological Survey of India or the C. S. I. R. should be undertaken.

Protection.—The case for protection was made by the Tariff Board set up in 1931 and should again be referred to the Tariff Board for enquiry into details of the kind and extent of protection for different types of articles to be extended to the industry.

Railway Freights.—Railway freights for glassware will have to be rationalised and made more homogenous.

Trade Marks and Standardisation.—If the industry is granted protection, Government must ensure that it develops along proper line so that its products can compete with foreign products. Details of control cannot be prescribed at this stage, but the institution of a system of Trade marks for this individual factories and the standardisation of both raw materials and finished goods would be necessary.

Research.—The Central Glass and Ceramic Institute which is to be established at Calcutta should be provided with ample funds, equipment and staff and Provincial Departments should be affiliated to it.

Training

(*i*) Facilities afforded by existing technical Institutes should be further widened in scope as an integral part of the provision of technical training in this country.

(*ii*) A specialised State School like that at Gablenz, Czechoslovakia should be started at Firozabad with teachers trained over there and some experts brought from there.

(*iii*) It is essential to import foreign experts to train Indian workers and also to send suitable Indian personnel for training abroad in Glass Technology. This probably cannot be achieved without interesting foreign firms in the Indian industry in one form or another.

(*iv*) As a first and experimental measure the following four types of operatives should be brought to India from abroad :—

(1) a foreman for operating semi-automatic machinery in the Blowing Department.

(2) an engineering worker for maintenance and repair of semi-automatic machinery in the Blowing Dept.

(3) a smelter for tank furnaces.

(4) a foreman of the Pressed ware Department.

These men should be attached to the Central Glass and Ceramic Research Institute at Calcutta.

Collection of Statistics.—Statistics regarding the industry should be collected and properly classified by the Central Glass and Ceramic Research Institute.

7. *Government orders.*—The report is being finalised and Government have not yet passed any orders on it.

SUMMARY OF DRAFT REPORT OF THE PANEL ON REFRACTORIES AND CERAMIC INDUSTRIES

I. CERAMICS INDUSTRY

1. *Potential capacity of existing units.*—The pottery industry in the modern sense is of very recent origin in India. At present there are in all 49 pottery and porcelain factories in different Provinces and States. The approximate tonnage of various types of ceramics manufactured in 1939 and 1945 in the country was—

	1939	1945
(*a*) **White ware**	2,000 tons	5,600 tons
(*b*) **Insulators**	2,200 tons	8,300 tons
(*c*) **Stoneware**	4,500 tons	5,400 tons

The white-ware handled by the Indian industry have been mostly in the cheaper line. For example, in table-ware only cheap types of cups, saucers, tea pots, plates etc. have been manufactured. In the line of low tension insulators, however, the Indian industry supplies nearly 90% of the country's demands. This particular line is fairly well established and the danger of foreign competition from the point of quality and price is not great. The manufacture of stoneware jars has also been well established in the country. This particular type has developed greatly within the last decade and there are prospects of its further expansion in the post-war years.

2. *Target of expansion.*—Having regard to the volume of production and import of various types of potteries in recent years, the Panel have made the following

recommendations for the expansion of the ceramics industry on an all-India basi during the first post-war quinquenium.:—

(a) The targets of expansion should be

		Percentage of increase over the 1945 production
(i) White ware	6,768 tons per annum	20%
(ii) Insulators	9,545 tons per annum	15%
(iii) Stone ware Jars	6,480 tons per annum	20%

(b) The production of cheap and durable quality of white-ware should be increased by 100% within the shortest possible time. The production of sanitary ware, hospital ware, chemical porcelain, etc. should be increased according to demands and the targets for high and low tension insulators should be set having regard to contemplated programme for thermal and hydro-electric power projects and expansion of telephonic and telegraphic communication.

3. *Location.*—The location of factories should be on a regional basis.

4. *Other recommendations*—

(i) Investigation within the shortest possible time of the raw material resources of the country.

(ii) Standardisation of raw materials.

(iii) Arrangements for technical education, both Supervisory and Artisan type by sending Indians abroad and by opening centres in Indian universities.

(iv) Liberal Grant of licences for the import of Capital Goods.

(v) Import of good Ball clay duty free.

(vi) Establishment of Research Institutions.

(vii) Fixation of special railway freight rates for the transport of raw materials.

II. REFRACTORIES

1. *Potential capacity of existing units.*—The refractory industry deals with the manufacture of several varieties of products, *e.g.*, fire-bricks, Silica bricks, Chrome bricks, Magnesite bricks, etc. There are at present 5 large and 16 small refractory manufacturing plants in India, and the total production capacity of these plants is over 200,000 tons per annum. The majority of them are located in the coal field areas of Bengal and Bihar, within a radius of 30 miles of Asansol, and there are only a few in C. P. and other parts of the country. The iron and steel industries consume 50% of the entire production of refractories. In the pre-war days a small quantity was made available for export to neighbouring countries. During World War II (1939—45), however, the rapid industrial expansion created greater demand for refractories with the result that at the last stage of the war some quantity had to be imported from abroad. Specialised refractories (*e.g.*, chrome-Magnesite bricks, Graphite refractories, Silicon Carbide products, high temperature cement, Glass pots etc.) which are vital to the industries concerned are normally imported from abroad.

2. *Target of expansion and location.*—The extent of development of the existing refractories industry will depend upon the expansion of steel and other industries in the

post-war period. On the basis of the data collected, the Panel have recommended that the target for increase of production may provisionally be fixed at 100% during the next ten to fifteen years. This increase of production should be secured firstly by expansion of capacities of existing works, and secondly by setting up new works near the existing refractory works in the Bengal-Bihar coal field and possibly also in C. P. The manufacture of special type of high price refractories may be located in other areas

3. *Other recommendations.*—

(i) Establishment of the manufacture of critical refractories like Graphite and Silicon Carbide,

(ii) Proper utilisation and conservation of Indian Cyanite and Sillimanite for making refractories specially used in the glass and non-ferrous metal industries.

(iii) Adoption of a systematic national policy for the conservation of Chrome and other essential raw materials to prevent their depletion by injudicious and uncontrolled export and crude mining methods.

(iv) Standardisation of specifications.

III.—TERRA COTTA INDUSTRY

The manufacture of roofing and paving tiles has up till now been limited mostly to south India. In view of the importance attached to this particular type of building material, the Panel has recommended that the industry should be totally decentralised so that every group of villages within a radius of 100 to 150 miles may have its own sources of supply of roofing and paving tiles and street paving bricks. Initially the industry should be properly organised under Government patronage by (i) making use of the Research Laboratories for carrying on the spade work for testing suitable material in different parts of the country and (ii) designing suitable machinery and furnaces for large scale production so as to reduce the cost of production considerably. It is also recommended that the expansion of the industry should be linked with the programmes for the improvement of village sanitation and standards of housing.

4. *Ownership.*—The Panel are of the opinion that the Refractories and Ceramics Industries should be allowed to develop under private enterprise.

5. The Report is being finalised.

SUMMARY OF THE DRAFT REPORT OF THE PANEL ON OILS AND SOAPS

1. *Present position.*—The present production of soap in India is about 140,000 tons per year, as against a production capacity of about 160,000 tons. The per capital consumption per year is about 12 oz. which is very low.

The present output of glycerine from soap factories is about 2,500 tons.

2. *Target of production.*—The five year target of soap should be 300,000 tons per annum. This would provide 24 oz. per capita for a population for 440 millions. The target for glycerine should be 6,500 tons.

Raw materials.—The proposed expansion will involve a greatly increased consumption of oils, fats and resin. The latter is available in large quantities in India and should be used as much as possible in order to conserve resources of oils and fats. It will however be necessary to import certain oils, aromatic chemicals and soap colours for some time to come. The import of soft wood to make packing cases for soap may also be required.

3. *Location.*—The Panel has recommended the following locations :—

Location	Existing production capacity per month tons	Total production recommended per month tons	Extra production required per month tons
Bombay area			
(Bombay Province, parts of C. P., Hyderabad and Deccan States).	4,000	6,500	2,500
Karachi area			
(Sind, Punjab and N. W. F. P.) . .	3,000	5,000	2,000
Calcutta area			
(Bengal, Assam, a part of Bihar and C. P.) .	4,000	6,500	2,500
U. P. area			
(U. P., Delhi and parts of Bihar and C. P.) .	1,000	3,500	2,500
Madras area			
(Madras Province, a part of Hyderabad, Mysore and other Southern States).	1,300	3,500	2,200
	13,300	25,000	11,700

4. *Organisation of the Industry and the extent of Government control and assistance*

The Panel have made the following recommendation regarding the organisation of the industry and the extent of Government control and assistance.

(i) *Ownership.*—The industry should be entirely under private ownership, but development on a cottage industry basis is not recommended.

(ii) *Industrial Associations.*—There is already an All-India Soap Making Association, but in view of the large size of the country and the wide distribution of the industry there must be regional associations affiliated to the central association. No cartel is desirable.

(iii) *Enforcement of standards.*—Suitable steps should be taken for enforcement of the specifications regarding the anhydride content in soap.

(iv) *Tariff etc.*—Duty on such essential oils, aromatic chemicals and fatty oils as are not produced in India should be lower than the duty on soap. The present revenue duty on all soaps should continue.

(v) *Export.*—Government should give support for development for an export market to Asiatic countries and East Africa and Egypt.

(vi) *Training.*—Arrangements should be made in large factories in India for the training of 5 students per year, and Government should make arrangements for the training of 10 students per year in foreign countries in the manufacture of soap and the recovery of glycerine in soap factories.

(vii) *Subsidy.*—Government should grant a subsidy to establish firms to undertake the manufacture of soap goods.

5. The report is being finalised and Government have not yet passed orders on it.

SUMMARY OF DRAFT REPORT ON PAINTS AND VARNISHES

There are at present 38 paint factories, of which 15 are large and well established and 5 pigment and colour manufacturers. The various products of the industry may be classified as under :—

(i) Paints and enamels,
(ii) Varnishes and lacquers, and
(iii) Pigments.

The first two constitute finished products, whereas pigments are more in the nature of raw materials both for the paint industry itself and for other industries Other raw materials employed by the industry, besides pigments, may be grouped as—

(a) Drying oils and Driers
(b) Solvents and Thinners
(c) Resins and synthetic resins.

With the exception of synthetic resins all of these are available in India in the required quantities.

2. *Target of production.*—The existing production and the proposed targets in respect of the various products of the industry are shown in the statement below:—

Products	Existing production	Targets	Remarks
1) Paints and Enamels	50,000 tons	100,000 tons	50% of the proposed increase is to meet the increased demands of the internal market and the balance for export.
(2) Varnishes (all types)	25 lakhs gals.	No target proposed.	
(Superior quality)	135,000 gals.	300,000 gals.	
(3) PIGMENTS.			
(a) ZINC PIGMENT.			
Lithophone	..	5,000 tons	Estimated present requirement is 4,000 tons.
Zinc Oxide	4,000 tons	6,000 tons	The increased target of 8,000 tons is recommended if Lithophone manufacture is not developed.
(b) LEAD PIGMENTS.			
White lead, Red lead, Litharage and Lead chrome.	4,500 tons	8,000 tons	Mainly manufactured from imported lead as Indian sources of production of lead are negligible.
(c) TITANIUM WHITES	..	3,000 tons	Titanium—containing mineral deposits are available in large quantities in Travancore.
(d) Carbon Black	*Nil*	500 tons	About 400 tons per year are imported for use in paint, rubber and other industries.

(e) Aluminium powder .	250 tons (requirements not known).	500 tons.
(f) Mercuric oxide and cuprous oxide.	..	500 tons.

OTHER PIGMENTS

Barytes, Whiting, Gypsum, Bauxite, China Clay, Mica, Silica, Red Ochres, Iron reds, Ochres and Siennas, Yellow Chromes, Yellow oxide of Iron, Cadmium yellow, Terre Verte or Green Earth, Chrome Green or Brunswich Green, Chromium Oxide, Ultramarine Blue, Prussian Blue, Graphite and Lake Pigments.	These are the other pigments used in the Paint industry. Most of them are available in large quantities and hence no targets are suggested by the Panel.

3. *Location.*—The Panel recommend that the extra production of 50,000 tons of paints and enamels should be achieved by increasing the capacity of the existing plants by 25,000 tons and by installing new plants of a capacity of 25,000 tons. For the new plants 5 tons per day units are considered suitable. 15 such units are necessary and the Panel have made proposals for the distribution of 12 of these as follows :—

	tons per day
South India including Madras Presidency and the States of Hyderabad, Mysore, Travancore and Cochin, etc.	15
United Provinces	15
Central Provinces, Bihar, Assam, Orissa, Sind and N. W. F. P. .	5 for each province.

The Panel have recommended that no new plant should be installed in Bengal, Punjab and Bombay since the industry is already concentrated in these Provinces. There is, however, to be an expansion of existing plants by 25,000 tons and a good portion of this will go to these Provinces.

4. *Recommendations regarding Government assistance and Organisation.*—The Panel have made the following recommendations for increasing the scope and efficiency of the industry.

(i) A Central Association of all paint manufacturers should be formed to advise Government periodically on the development of the industry and the controls to be exercised. Membership should be made compulsory.

(ii) A Central Paints Laboratory should be started by Government in consultation with the industry. This laboratory should also be a training centre.

(iii) 15 technicians should be sent abroad annually for specialised studies, and arrangement should be made to import German technicians on a 3 years minimum contract.

(iv) A number of measures should be taken to encourage the production in India of various pigments (more especially Titanium Whites from titanium -containing deposits in Travancore) and synthetic resins. As most of the pigments belong to the class of minerals about which full information is not available, the Geological Survey of India should pay special attention to this matter.

5. The report is being finalised and Government have not yet passed any orders on it.

SUMMARY OF THE REPORT ON WOOLLEN TEXTILES

1. *Present position of the industry.*—At the outbreak of World War II (1939—45) there were 15 woollen mills in India and the total capital invested at the end of 1939 was somewhere between three to four crores of rupees. The worsted industry depends mainly on imported wool as most Indian wools are unsuited for the worsted process. Imported Merino is also required for fine quality woolens. The mills

produce chiefly serges, shirtings, drab mixture flannels and overcoatings. The following table gives a rough idea of the existing capacity of the mill industry—

Woollen spindles	50,000
Worsted spindles	37,500
Powerlooms	2,300
Handlooms in mills	500

2. *Target of expansion.*—The attached table (I) gives in a summarised form the average annual imports and indigenous manufacture of woollen goods during 1936—39 and an estimate of India's requirements during the first five years of the post-war period. It will be seen that the Panel expect an overall increase in consumption of about 60% over the pre-war consumption. In their opinion the target figures of production given in the table can easily be met by the existing plants and by new plants already licensed so far as the heavier weight fabrics are concerned. They accordingly recommend that no further licences to new parties for imports of woollen/worsted machinery should be issued during the first post-war quinquennium, and that new licences should hereafter be confined to existing woollen mills seeking to rehabilitate or balance their plant or to substitute fine count spinning for existing heavy counts.

3. *Location.*- The Panel are of opinion that the location of the existing woollen mills and of the proposed* new ones for which capital issues have been sanctioned is quite rational and no fault can be found with it.

4. *Organisation and Government assistance.*—The Panel have made the following recommendations regarding the organisation of the industry and the assistance to be given to it by Government :-

(*i*) The industry should continue to be run under private ownership as at present.

(*ii*) In the abnormal conditions created by the World War II, the Federation, of Woollen Manufacturers in India and the Textile Manufacturers Association Amritsar, which came into being during the period of hostilities, played an important part in furthering the cause of the woollen industry in the country. Their continuance in the post-war period is therefore strongly recommended and the mills are advised to group themselves into one or the other of the two Federations.

(*iii*) Steps should be taken to establish a Woollen Textile Research Institute.

(*iv*) Arrangements should be made for training woollen technicians in India and abroad in accordance with a programme drawn by the Panel.

(*v*) A woollen Development Section should be started as part of the Industries Department.

(*vi*) As the Indian Woollen Industry will need help and protection from Government for a long time to come, raw wool and tops should be exempted from customs as at present and similar exemption should be granted on artificial fibres used for blending with wool.

(*vii*) Woollen machinery should also be exempted from the payment of import duty.

5. *Other recommendations—The Cottage Woollen Industry.*—The Cottage Woollen Industry in India is a fairly important one and deserves to be preserved in the post-war period. At the outbreak of the war there were approximately 100,000 handlooms in the United Provinces, the Punjab, Jammu, Kashmir, Hyderabad and Mysore State, but their range of production was limited. For the development of the cottage industry the Panel has recommended that the organisational aspect should receive vigorous attention and that a Demonstration Centre equipped with 'H. F.' plant for producing high quality woollen textiles should be established at Delhi.

6. *The Indian Carpet Industry.*- With a view to reducing the cost of production of Indian Carpets and thus popularising them in foreign markets the manufacture of machine made carpets should be encouraged and to this end, facilities given for the import of machinery from Germany and U. S. A.

7. The recommendations made by the Panel are at present under the consideration of the Government of India.

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* *Vide* Talbe II attached.

TABLE I

Statement showing the average annual imports and indigenous manufacture of woollen goods and an estimate of India's requirements during the first post-war quinquennium.

a—Imports
b—Indian production

Item		1936—1939 Average pre-war consumption (*i.e.* pre-war import Indian production—lbs.)	Estimated Indian requirement during the first 5 post-war years—lb.
Woollen Knitted Apparel	a	269,000	2,200,000
	b	950,000	
		1,219,000	
Woollen Worsted Piecegoods	a	2,153,000	5,500,000
	b	1,347,500	
		3,500,500	
Mixtures Piecegoods	a	1,413,000	2,500,000
	b	74,500	
		1,487,500	
Blankets and Rugs	a	3,635,000	9,400,000
	b	2,137,000	
		5,772,000	
Worsted Yarn for Weaving	a	1,617,000	3,000,000
	b	59,000	
		1,676,000	
Knitting Wools and Hosiery yarns	a	1,169,000	2,600,000
	b	430,000	
		1,599,000	
Shawls and Lohis	a	*Nil*	1,000,000
	b	672,500	
		672,500	
Carpet Yarns (woollen yarns for carpets and blankets).	a	*Nil*	3,000,000
	b	1,856,000	
		1,856,000	
Mechanical Cloth	a	144,000	300,000
	b	67,000	
		211,000	
Other goods	a	700,000	1,000,000
	b	334,000	
		1,034,000	

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TABLE II

Existing Mills		New Mills for which Capital Issues have been sanctioned	
Cawnpore	2	Benares State	
Dhariwal	1	Baroda	
Bombay	6	Bombay	
Baroda	1	Rampur	
Bangalore	2	Bihar	
Amritsar	4	Kashmir	
		Chheharta	Punjab
		Khasa	
Srinagar	1	Amritsar	
		Panipat	
		Multan	
Mirzapur	1	Jaipur	
Allahabad	1	Calcutta	
		Mirzapur	
		Ahmedabad	

SUMMARY OF THE FINAL REPORT OF THE PANEL ON SILK

1. *Scope of the Report.*—The Panel has considered in detail the problems of the Silk Industry and has submitted its recommendations for the first quinquennium. The Panel has also outlined the expansion of the industry during the second and third five year periods. The enquiry has been confined to sericulture proper and has not dealt with the non-domesticated silk worms.

2. *Present Position.*—The Sericultural Industry consists of two well-defined sections —(1) the production of cocoons and (2) the production of raw silk including utilisation of by-products, —the first of which is essentially a cottage industry and the second partly a factory industry. The pre-war figure of consumption was 10 million lbs. of silk and silk products per year as against an indigenous production of 1¼ million pounds. During the war, owing to the urgent need of the United Nations for high quality silk, Government specially stimulated the development of filatures and this gave sericulture an impetus such as it had never had before. The rise in price of silk gave added impetus to the Industry. The impulse is now exhausted and it is essential that the industry which is also an essential national asset should be safeguarded against collapse.

3. *Target of Expansion.*—The target recommended for the first quinquennium is consolidation and retention of the present position of the industry. In the second and third five year periods, the industry should be expanded. At the end of fifteen years, production is expected to reach about 4 million lbs. of silk which would still leave a deficit of over 11 million lbs. which would have to be imported, on the assumption that the demand will have increased by then to 15 million lbs.

4. *Measure for consolidation of present position.*—The following are the measures proposed for the consolidation of the present position :—

(1) *Improvement of Mulberry cultivation.*—The Provinces should prepare five year plans for development of the industry which should include the establishment of mulberry farms for experimental purposes.

(2) *Adequate supply of disease-free seed.*—The total requirement of seed would be about 13 crores of layings requiring about 300 fully equipped grainages. Special seed cocoon areas should be organised for the efficient functioning of grainages. The seed organisation must be effectively controlled by Government.

(3) *Control of Silk Worm Diseases.*—Legislation for control of silk worm diseases on the lines of that in force in the Mysore State should be enacted.

(4) *Improvement of Rearing Reeling, Organisation and Marketing.*—Rearing should be supervised by an itinerant staff of trained men and sericultural co-operative societies should be formed for the purpose of avoiding wastage of effort in the earlier

stages of rearing. Reeling by the primitive method of " Charakas " should more and more be replaced by filatures.

(5) *Development of the Spun Silk Industry.*—The following measures are recommended :—

(*i*) For the purpose of the spun silk industry, India may be divided into two zones, north and south, and there may be put one spun silk mill for each area dealing with all the waste produced in it. These mills should purchase all the silk waste in their respective areas at a fair price.

(*ii*) Exports of silk waste from India should be prohibited.

(*iii*) The spun silk mills should be afforded all necessary priorities and facilities for manufacture and transport of machinery to expand their operation sufficiently to cope with their responsibility ; and should be regarded as sole agents for the export of Indian silk waste and permitted to export only the unutilised surplus.

(6) *Organisation and Inter-Provincial and States co-operation.*—All branches of the industry should be organised and coordinated into a well-knit whole. There should be regional silk associations enjoying the support of the administrations and federated in an All-India organisation.

5. *Location.*—The industry is at present located in Mysore, Bengal, Madras, Jammu and Kashmir. The Panel has not made any recommendations regarding location as the first five year plan confines itself primarily to the consolidation of the existing industry.

6. The Panel have made the following recommendations regarding Government assistance and control :—

(*i*) *Central Silk Board.*—A Central Silk Board, which should be a statutory body, representing all Sericultural Provinces and States, should be set up to bring together the knowledge and interests of all silk producing parts of the country in order to implement the policy of the Government regarding the industry.

(*ii*) *Research.*—There should be a well-equipped research institute for each Sericultural Region and a Central Institute for the whole of India where the results of research in the regions would be co-ordinated.

(*iii*) *Technical Assistance.*—There is already much knowledge and experience available in India and no foreign assistance is necessary except for specific purposes which will have to be decided by the Central Silk Board.

(*iv*) *Standardisation of products.*—Every producing State or Province should set up one or more Conditioning Houses for issuing certificates of quality and standard, and to deal with silk imports, there must be at each port of entry a Conditioning House run by the Central Government. An all-India Inspector of Conditioning Houses for periodical inspection of all Conditioning Houses should be appointed.

(*v*) *Protection.*—The Industry deserves protection and fulfils all the necessary conditions.

(*vi*) *Decontrol of Prices.*—As silk is an article of luxury, the price should be decontrolled without delay.

(*vii*) *Foreign Raw Silk entering as war reparations.*—As the effect of releasing Japanese reparation silk in the market at a very low cost price would be disastrous to the indigenous industry, it should only be released in the market at the prevailing price.

7. Government have not yet passed orders on the Report.

SUMMARY OF THE REPORT OF THE PANEL ON COIR, ROPE CORDAGE AND OTHER FIBRE INDUSTRIES

1. *The Coir Industry—Preliminary remarks.*—The coir industry depends on the cultivation and production of cocoanuts and hence it is mainly confined to South India.

2. *Pre-war production and Post-war targets.*—The relevant figures (which are only estimates) relating to coir, manufactured and unmanufactured, are given below:—

Province or State	Acres in 000's of acres	Pre-war production (Tons)	Post-war targets (Tons)
Madras	606	25,038	1,00,000
Travancore	585	80,000	1,00,000
Cochin	67	17,000	19,000
Mysore	170	*	2,400
Bombay	29	63	7,500
Bengal	31	225	225
Orissa	30	*	*

The Panel are of opinion that Bombay and Bengal should aim at attaining self-sufficiency, while Travancore, Cochin and Malabar should try to find export markets for their products. With full utilisation of available raw materials, improvement in communications and introduction of improved chemical and mechanical methods of retting, the post-war targets can in their opinion be achieved. They recommend that the cottage characteristics of the industry should not be disturbed and thus disrupt village economy. Introduction of some cheap and easy machinery worked by manual labour is advocated.

3. *Marketing of Coir Products.*—The existence of a multiplicity of middlemen should be done away with by organising co-operative Societies.

As regards foreign markets a set-back was experienced during the war, but as cheap floor-coverings, such as China grass mats, are not available, there is a great demand for coir mats and mattings in U.S.A., Canada and almost all of the European countries. Coir yarn is also in demand. With conditions returning to normal, the present demand may not last, but steps should be taken to expand our markets, preferably for the manufactured goods. This should be kept as an objective in the post-war policy for the coir industry.

4. *The Future Position of the Coir Industry.*—The Panel for various reasons think that competition from Ceylon and preference for Jute floor-coverings, or other cheap floor-coverings will not affect the Indian coir industry in the near future. Regarding hemp, Javan Sisal, East African Sisal etc., the Panel are of opinion that only East African Sisal will be a factor in the world's supply of hard fibres, and this only after a number of years. This being the case, the cultivation of industrial fibre plants (such as East African Sisal) on a large commercial scale with the aid of up-to-date machinery should engage the serious attention of the various Governments. Research should also be directed to the manufacture of synthetic fibres on a commercial scale and improvemet in machinery and methods of manufacture.

5. *Government Assistance.*—The Coir Industry is fundamentally a cottage industry and there is no need for nationalisation or the provision of capital by the State. Some assistance from Government is however required in regard to research, the developmet of marketing on a co-operative basis, legislation for establishment for licensed warehouses, and improvement of communications.

6. *Rope and other Fibre Industry.*—The Panel have not made any recommendation whatsoever.

7. *Government orders.*—Government have not yet passed any orders on this report.

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* Not availablie.

SUMMARY OF THE DRAFT REPORT OF THE PANEL ON HOSIERY INDUSTRY

1. *Present position.*—The Hosiery industry has been in existence in India for the last fifty years. The main centres of manufacture are in the provinces of Bengal, Punjab, U. P., Bombay and Madras. The industry is also growing in some Indian States, *e.g.* Mysore, Indore and Gwalior. The units vary considerably—some are large size factories, some are sections of large textile mills, while some are run on a cottage industry basis.

Different branches of the industry may be distinguished according as cotton, wool, silk or rayon (artificial silk) is used as yarn for the manufacture of knitted goods. The cotton hosiery branch is the most important and accounts for over 85% of the total consumption of yarn by the industry. Most of the woollen silk and rayon yarn used to be imported from Japan.

2. *Production target.*—Figures of present production have not been given, but before the war production was quite insufficient to meet the demands of the internal market and hosiery goods of all classes were imported. The Panel consider that the internal demand is bound to increase, not to mention the possibility of developing an export trade. They recommend the following annual production targets during the first five post-war years—

Type of garment	Annual production target at the end of 1951	Quantity of yarn required
(1) Underwear	600 million pieces (including 200 million pieces for export).	150 million lbs. at the rate of about 4 oz. per garment.
(2) Outerwear including neck-ware head-ware etc.,	100 million pieces (including 33 million pieces for export).	37½ million lbs. at the rate of about 6 oz. per garment.
(3) Footwear including socks, stockings, etc.	50 million pairs (including 17 million pairs for export).	4 million lbs. at the rate of about 1 lb. per doz. pairs

The Panel anticipate that this production would be divided between cotton, woollen and rayon hosiery as follows :—

Type of garment	Anticipated % of cotton hosiery	Anticipated % of woollen hosiery	Anticipated % of rayon and staple fibre hosiery (including silk)
1. Under-wear . . .	80	10	10
2. Outer-wear . . .	60	40	..
3. Foot-wear . . .	70	20	10

In order to achieve this production target the Panel estimate that over 15,000 knitting Machines will have to be imported and that altogether capital goods worth Rs. 10 crores will be required during the quinquennium.

3. *Location.*—The Panel are of the opinion that besides the general principles laid down in the industrial policy of the Government, no other factors should govern the future location of hosiery factories in India, and they make no specific recommendation in this regard.

4. *Recommendations regarding the extent of Government control.*—The industry should be run entirely by private enterprise. The necessary private capital will be forthcoming in the Panel's opinion for the projected expansion. There should be no Government controls except those which may form part of the general industrial policy of the Government.

5. *Nature of Government assistance required.*—The industry should be assisted in the following ways :—

(a) *Protection.*—The present rate of tariff granted should be continued.

(b) *Establishment of needle manufacturing factories.*—Early steps should be taken to establish factories for the manufacture of hosiery needles in this country. The possibility of manufacturing knitting machines in India should be explored.

(c) *Research.*—A separate research section should be attached to the Cotton Technological Laboratory, Indian Central Cotton Committee, Bombay for tackling research problems. The Government should sanction an adequate research grant for this purpose and provide for active co-ordination between the industry and proposed research section.

(d) *Help for developing export trade.*—The Panel think that with the elimination of Japan there are bright prospects of developing an export trade of which advantage should be taken. Government should provide facilities by reduction of railway freights.

6. *Miscellaneous Recommendations.*—The Panel have also made the following miscellaneous recommendations :—

(a) *Supply of yarns.*—Government should keep constantly in view the needs of the hosiery industry when allocating spinning plants both for cotton yarn or worsted yarns.

(b) *Development on cottage industry basis.*—When Government electrification plans mature and power is available in the villages at cheap rates, the industry should be developed on a cottage industry basis.

(c) *Industrial Association.*—Hosiery manufacturers should form themselves into an association for the development of the industry, particularly with regard to fixing specifications and grades of products both for internal and export markets. The Panel do not favour a cartel for the industry.

7. *Government orders.*—Government have decided that it is not necessary to lay down targets of production or to indicate or restrict the location of new units. Orders on the remaining recommendations have not yet been passed.

SUMMARY OF THE DRAFT REPORT OF THE PANEL ON READYMADE CLOTHING INDUSTRY

Present position.—At the outbreak of World War II India had scarcely developed a Readymade Clothing Industry. There were two small factories owned by Railways to meet their own requirements and there were a few firms in large cities producing readymade garments on machines, but generally speaking the industry did not cater for the civilian population. However, World War II produced as many as 9 clothing factories and three parachute factories to meet army requirements. In December 1944 these concerns employed over 14,100 skilled labourers, 2,300 semi-skilled labourers, 11,300 unskilled labourers, and in addition more than 200,000 workers were employed by contractors throughout the country. Compared with the normal peace-time output of 9,000,000 readymade garments the output in 1942-43 was about 100 million garments. With the cessation of hostilities there has been a considerable drop in demand for military clothing and unless measures to switch over to peace-time requirements are kept in readiness there will be unemployment, besides loss of energy and labour expended in organising the industry to its present pitch. An additional reason for having this industry is the fact that at least 5 to 10 per cent. saving in cloth can be affected when the cloth is cut on a mass scale by modern methods.

Post-war target.—The panel recommend that five readymade clothing factories should be established during the first five post-war years. Each factory should have a minimum production capacity of 10,800 garments per day and they should increase their production annually by 25%.

Location.—These factories can with advantage be located at Madras, Bombay, Calcutta, Delhi and Amritsar. As the industry already exists at these places technical personnel will be readily available. Moreover these places are important textile producing centres.

Raw materials machinery.—Cloth is the chief raw material and the five proposed factories will consume on an average about 4 million yards of cloth per month. Modern machinery should be imported. Capital goods worth about Rs. 35 lakhs will be required in the first five post-war years.

Organisation.—The industry can be left entirely to private enterprise. No foreign co-operation in the form of capital or management is necessary.

Government assistance and control.—The Panel have made the following recommendations regarding Government assistance and control :—

(1) There should be Government control over marketing and distribution of products, supply of materials, designs and specifications, prices and wages.

(2) Government should appoint a special officer with high technical qualification and a small technical establishment under him to study the problems of the Industry and run one of the Ordnance Clothing Factories, which are to be closed down, as a model institution. A small Advisory Committee consisting of representatives of the trade should be constituted to guide the work of the above organisation.

(3) The industry does not need protection but concessional railway freights may be allowed for transport of cloth required for the industry.

(4) Provincial Governments should provide all facilities such as supply of electric power at concessional rates, acquisition of land, registration of companies etc. to prospective industrialists who wish to start this industry.

(5) Government should arrange to allocate the required quota of cloth to this Industry.

(6) At least 12 young Indians should be sent abroad every year by the Government for advanced technical training in the different branches of this Industry. Training of lower technical personnel such as tailors, supervisors etc. should be done at the proposed Government Polytechnics which are to be established in the country.

Export.—The question of export should be taken up later when the present acute shortage of textiles has eased. In the event of India exporting textiles at all, Government should insist that these should be, so far as possible, in the form of readymade garments.

No action has yet been taken on the report.

SUMMARY OF THE REPORT OF THE PANEL ON NON-FERROUS METALS

1. *Present production and future targets.*—With the exception of a few minerals like Magnesium, Manganese and Beryllium, of which she possesses extensive deposits, India has to depend largely or entirely on foreign imports for a majority of the non-ferrous metals. The present production and suggested targets of production of the more important non-ferrous metals are given below :—

Metal	Present production	Target of production	Remarks
Copper base	6,000	12,000	
Electrolytic copper	*Nil*	10,000	From scrap refining.
Copper manufactures—			
Brass sheets and strip	15,000	35,000	
Copper sheets and strip	10,000	6,000	
Lead	100	12,000	From new Indian mines if ores can be successfully exploited.

Metal	Present Production	Target of Production	Remarks
Zinc	*Nil*	Not fixed.	Dependent on discovery of ores.
Aluminium ingots	2,400	15,000	
Aluminium manufactures—			
Sheets	10,000	10,000	
Foil	*Nil*	2,000	
Wire and cable	*Nil*	5,000	
Powder	100	1,000	
Tubes and shapes	*Nil*	2,000	
Tin	*Nil*	Not fixed	Dependent on discovery of ores.
Antimony	200	400	
Nickel	..	Not fixed	Dependent on development of ores reported to exist in Nepal.
Magnesium	..	..	Exportable surplus.
Manganese	..	..	Do.
Beryllium	..	..	Do.
Titanium	..	..	Do.
Chromium	..	..	Do.
Arsonic	..	..	Enough ore deposits located to meet local demands.
Barytes (Barium ore)	..	..	Self-sufficient.

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Location

2. *Copper and copper manufacture.*—One Copper mining concern in Singhbhum produces about 6,000 tons of copper annually, but they do not anticipate any further increase in production. The Panel recommend that increased capacity be attained by prospecting copper deposits in the Sikkim and Jaipur States, importing copper concentrates from Burma and increasing the production of electrolytic copper, the last of which is immediately possible.

As far as copper manufactures are concerned, the Panel have suggested the installation of 3 plants, one each near Bombay, Madras and U. P. for the manufacture of brass and copper sheets and strips.

3. *Aluminium.*—Two companies with a total productive capacity of 8,000 tons per year are at present engaged in the production of the virgin metal, one in Travancore and another in Asansol. The Panel have not made any specific recommendations about the installation of new plants to reach the target, but have generally indicated where the raw materials are available.

There is only one up-to-date rolling mill near Calcutta with a productive capacity of 3,000 tons of aluminium sheets and a new mill at Asansol whose capacity is not known. The Panel recommend the installation of 2 rolling mills, one in South India and another in Western or Central India, each producing 35,000 tons of sheets. They also recommend the starting of one mill near Bombay for rolling foils and another in Bombay, Punjab or Southern India for wire drawing and stranding.

4. *Lead.*—Pre-war requirements of lead were mainly met by imports from Burma. The only areas where lead ores have been located in appreciable quantities are in the Jaipur State in Rajputana and in Bihar. The Panel have recommended that a metallurgical Centre should be started in Rajputana where deposits of Zinc and Copper are also known to exist.

The future possibilities of lead smelting are not easy to assess in view of the incomplete knowledge of future supplies.

5. *Zinc.*—Deposits of Zinc are confined to Zawar in the Udaipur State and Kashmir, though systematic surveys have not been carried out. The Panel suggest that these deposits should be investigated and that Government should take steps to start smelters in these places.

6. *Magnesium.*—Large deposits of Magnesium carbonate exist at Salem, Madras and the Panel attach great importance to starting a magnesium industry in India in view of her shortage of other non-ferrous metals. If private enterprise is shy, Government should take up production. Since, however, a large consumption of magnesium is not expected in India in the immediate future, the Panel recommend the advisability of developing a secondary magnesium industry in India by recovering magnesium in distillation from aircraft scrap. Production of virgin metal could be taken in the second five-year period.

7. *Manganese.*—India is one of the two principal producers of high grade manganese in the world. The ores are widely distributed in the Deccan, Singhbhum, Eastern States Agency, C. P., Madras and Bombay Presidencies and Mysore, but over 95% of the output is exported. Government should encourage the export of ferro-manganese rather than manganese ores. It should also encourage the manufacture of electro-manganese. It is understood that a Bombay firm intends to put up a pilot plant with a productive capacity of 1,000 lb. of high parity electro-manganese per month. The Panel recommend that Government should give facilities for the import of electrical and other equipment needed for this plant.

8. *Government assistance and control.*—The Panel have made the following recommendations regarding Government assistance and control:—

(*a*) Virgin metals, of which there is scarcity in India, should be imported duty free, but the duty on semi-manufacturers should be high, while in the case of metals with an exportable surplus, exports should be restricted or permitted only as semi-manufactures and not as ore.

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(*b*) Ownership of semi-manufacturing and fabricating industries should be left entirely to private enterprise, but as regards undertakings concerned with the actual production of virgin metals Government ownership may be necessary in case sufficient private capital is not forthcoming. It may also be advisable to give bounties and subsidies to producers of virgin metals.

(*c*) Government control would be required to the extent necessary for ensuring that targets of production are reached and that State assistance is not misused.

(*d*) In order to co-ordinate the various activities connected with the development of metal and mineral industries, a department of Metal and Mineral industries should be formed at the Centre with a Minister-in-Charge who should be assisted by a Metals and Minerals Board with members drawn from industrial Associations, Geological Survey of India, the proposed National Metallurgical Laboratories etc.

(*e*) A Technological Institute and a National Metallurgical Laboratory should be established for training and research in Metallurgical subjects.

(*f*) A planned quota of Indian students and technicians should be sent to foreign countries for a number of years for training in production and fabrication of non-ferrous metals and alloys.

9. The recommendations of the Panel are being examined by Government and no decisions have yet been taken.

SUMMARY OF THE REPORT OF THE PANEL ON LEATHER AND LEATHER GOODS

1. *Present position and proposed expenditure.*– India's resources of raw hides and skins are abundant and before the war large quantities used to be exported. With the development of the tanning and leather goods industry India will be able to use all these resources herself. The panel have shown that it is uneconomic to export them in their raw state and has recommended that export of raw hides and sheep skins should be banned completely and that export of raw goat skins should be restricted to 30% of the pre-war figure.

The following table, showing the disposal of the hides and skins available in India in the year immediately before war, gives some idea of what this recommendation of the panel amounts to:—

Description	Total available including imports (in lakh pieces)	Tanned in India (in lakh pieces)	Exported as raw (in lakh pieces)
Buffalo hides . . .	62	55·8	6·2
Cow hides kips . . .	205	158·9	46·1
Goat skins . . .	300	60·6	239·4
Sheep skins . . .	200	186·8	13·2

The Panel visualises an all-round expansion of both the tanning and the leather footwear and leather goods industry. These may be considered separately.

2. *Supply of tanning materials.*—TANNING INDUSTRY.—The tanning industry requires an adequate supply not only of hides and skins but also of tanning materials. The indigenous tan stuffs are Babul Bark (used widely in Northern India) and Avaram Bark (used in Southern India); but of recent years they have been steadily replaced by Wattle Bark (Acacia Mollissima) imported from South Africa and Kenya. Wattle Bark is gaining in popularity and the Panel consider that it has come to stay. They recommend that measures be taken to introduce large scale wattle plantations in this country at once and that an expert delegation be sent as soon as possible to study the wattle plantation industry of South Africa.

Meanwhile attempts should be made to keep up the supply of Babul and Avaram Bark.

Attempts should also be made to establish a tanning extract industry in India and to manufacture synthetic tannings.

3. *Target of production.*—The bulk of the leather produced falls into five main classes. The pre-war production and the post-war targets proposed by the Panel for each of those five classes are shown in the table below:—

(Figures in lakh pieces)

	pre-war production	*post-war targets*
Vegetable or Bark Tanning —		
(1) Bag tanned leather	91	95·5
(2) Half tanned leather—Hides . . .	86	86
Goat and sheep skins	190	272

(Figures in lakh pieces)

	pre-war production	*post-war targets*
(3) Pit tanned heavy leathers (*e.g.* sole, harness and belting)	6	42
Chrome Tanning—		
(4) Box and willow sides	73 million sq. ft.	140 million sq. ft.
(5) Glace kid leather	Not given.	30 lakh pieces above current production.

Methods of reaching targets and suggested location of industry.—Bag tanned leather.—The Panel consider that the target can be reached by banning the export of raw hides, by organising bag tanners into co-operative societies and by givin them technical help through peripatetic demonstration parties.

Half tanned leather.—This branch of the industry is located chiefly in Southern India. For its expansion an adequate supply of raw hides and skin and of tan wattle bark (*vide* para. 2 *supra*) are essential. For half tanned hides the target proposed represents no advance on the pre-war production as the panel consider that it will take some time for the industry to regain the pre-war average level. The Panel consider there is scope for the extension of this branch of the industry to Bengal, Punjab, Orissa and C. P. and for its expansion in Bombay, Sind and Kathiawar. Re-tanning and finishing of half tanned leather should be developed with a view to export of finished leather.

Pit tanned heavy leather.—Manufacture of this type of leather is at present concentrated at Cawnpore where there are 8 big commercial tanneries producing leather of this character. A certain quantity is also produced at Calcutta. Pit tanning is essentially a capitalist industry and not a cottage one.

During the war a great stimulus was given to this industry. It can now tan 42 lakh buffalo hides annually, but owing to lack of hides it is not working to capacity. It may with advantage be expanded in the Punjab where heavy buffalo hides are available and extended to C. P., Kathiawar, Hyderabad, N. W.-F. P. and Bihar

Box and willow sides, kips and calf.—These are soft leathers which can be used for making shoe uppers. There is room for a very great expansion of production which can be achieved to some extent by prohibiting the export of cow hides, by installing up-to-date machinery in the existing chrome tanneries and by starting new ones. Nagpur is suggested as one suitable centre.

Glace kid leather.—This is a highly specialised product used for ladies' shoes and the lighter type of men's footwear. It is manufactured by two European Tanneries at Madras and by Messrs. Cooper Allen and Company at Cawnpore. The Panel considers that there is great scope for expansion as huge numbers of goat skins are at present exported raw. The industry would work largely for export as the demand for Glace kid in India is small. In order to attain the suggested expansion, students and Technicians already working in Tanneries should be sent abroad to study the technique of Glace kid manufacture. A Glace kid expert should be brought out from U. S. A. or U. K., and facilities should be given for research, the import of machinery, and the development of export markets.

The Panel suggests that Bengal, Bihar and Southern Madras are suitable provinces for location of Glace Kid Tanneries.

LEATHER FOOTWEAR AND LEATHER GOODS INDUSTRY

4. *Leather Footwear—Targets.*—The leather footwear industry is still preponderatingly hand-worked and run mostly on a cottage basis. It may be divided into

two sections, one making indigenous types of footwear and the second Western types. The pre-war production and the post-war targets proposed by the panel are as follows :—

	(In million pairs) *pre-war production*	*post-war targets*
Indigenous types of shoes	700	1,500
Western types of shoes	30	45

With a view to achieving these targets the Panel recommend that the shoe industry should be progressively mechanised, beginning with the hand-shoe making factories of Agra and elsewhere. New machine shoe factories should also be established at suitable centres (these are not specified) and facilities given for import of machinery and capital goods.

5. *Leather goods- Sports goods.*- The Panel recommend that production should be doubled during the first post-war quinquennium and that a big export drive should be initiated.

Miscellaneous leather goods.- These may be divided into Civilian, Industrial and Military.

Civilian goods.—The main classes of civilian leather goods are :

(*a*) Trunks and suit-cases etc., (*b*) Ladies handbags, and (*c*) Small leather goods *e.g.*, purses, wallets and cigarette cases etc.

For the first class the Panel recommends 100% increase over the present production, for the second class 100% over the peak production attained during the war, and for the third class 200% production over the present level.

Industrial goods.—Leather machine belting and cotton pickers are the most important items. The Panel recommends that we should aim at completely eliminating the import of pickers by the end of 5 years and replace by home manufacture 75% of the prewar import of belting. Heavy import duties are recommended on both these articles.

Military goods.—These are turned out at the Government Harness and Saddlery Factory. The Panel recommends that this should be closed down by the end of the first 5 years and that the military demand should be thrown open to the trade.

6. *By-products of the leather industry*—(a) *Glue.*—About 15,000 tons of glue were imported before the War. Annual manufacture of glue in India should be increased by 7,000 tons so that part of these imports will be stopped. Export of hides and skins cuttings (glue stock) should be banned.

(b) *Leather Board.*—Production should be increased by 100 per cent.

(c) *Leather Trades Machinery Industry.*—In order to develop the manufacture of leather trades Machinery in India the Panel recommends that Government should subsidise or participate in the share capital of deserving concerns.

7. *Government Assistance required for Tanning and Leather Industry.*—The development of the tanning and leather industries will require Government's assistance in various forms, some of which have already been indicated, *e.g.*, banning of exports of raw hides and skins, plantation of wattle, import duties on certain forms of goods. The Panel consider that its assistance will also be required in the following respects :—

(*i*) *Research.*—A Central Leather Research Institute on a national scale should be established and grants for research made to commercial tanneries and provincial tanning institutes.

(*ii*) *Training.*—The Panel consider that there is no immediate need to multiply the number of tanning institutes and that inter-provincial arrangements should be made for training students of all provinces and States in the existing institutes ; but facilities should be arranged for granting practical training to Indian students in industrial concerns abroad, and technicians from abroad should be hired to train the personnel of factories here.

8. *Future organisation of the industry.*—Establishment of a Department of Leather Industries and of a Leather Industries Council, both under the Department of Industries and Supplies, are recommended by the Panel. The Function of the proposed Department will be to organise and develop the industry along efficient and progressive lines. The proposed council will serve as an advisory body to it.

The Panel also recommends Provincial Associations, affiliated to an All-India Federation, for different sections of the industry.

9. *Government orders.*—Government have not yet passed orders on the report.

SUMMARY OF THE REPORT ON COTTON TEXTILES

In February 1945, the Government of India appointed a Committee to prepare a plan for the development of the Indian Cotton Textile Industry, and suggested to them that the aim should be to increase the productive capacity of the existing mill industry from 4,800 million yds. to 7,200 million yds. per annum of mill-made cloth. The principal decisions which have resulted from this Committee's appointment are set forth in the following paragraphs.

1. *Target of expansion.*—The Committee agreed that the expansion of the mill industry proposed by Government might in principle be desirable, but they considered it impracticable in the immediate post-war period owing to the impossibility of procuring the necessary textile machinery. They recommended, therefore, that for the present the aim should be to expand mill production by 1,700 million yds. per annum only (510 million yds. fine cloth and 1,190 million yds. coarse cloth) which would mean an increase of 2.75 million spindles (1.25 million for fine counts and 1.5 million for coarse counts). This has been accepted by Government as an interim target. The broad results are expected to be as follows :—

Existing production of mill-made cloth	4,800	million	yds.
Existing production of mill-made handloom cloth . . .	1,500	,,	,,
Proposed increase in production of mill-made cloth . . .	1,700	,,	,,
Total .	8,000	,,	,,
Less provision for export at 10 per cent. of total production .	800	,,	,,
Balance available for India	7,200	,,	,,

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Assuming that the total population of India is about 400 million, the above production would provide approximately 18 yds. of cloth per head per annum.

2. *Allocation of new spindleage.*—The Committee made recommendations for the allocation of the new spindleage to different Territorial zones on the principle that industrial enterprise must be distributed, as far as practicable, on a countrywide basis. The Government of India have accepted these recommendations subject o some minor modifications. The resulting allocation of new spindleage is shown in the attached table.

3. *Handloom Industry.*—The only evidence regarding the quantities of cloth produced by handlooms in India is contained in the Report of the Fact Finding Committee (Handlooms and Mills) 1942 which puts pre-war production at 1,500 million yds. per annum. This production would require 333 million lbs. of yarn per annum. The surplus yarn produced annually at present by all existing mills is estimated to amount to 503 million lbs. The Committee considered that this surplus was quite sufficient to provide for the future requirements of the handloom industry as we as to meet the demand of other consumers. The Government of India were not, however, entirely satisfied on this point, and therefore, in order to ensure increased

supplies of yarn to handloom weavers and other consumers, they have directed that 25 per cent. of the new spindles installed should be left uncovered by looms.

4. *Tariff Policy.*—In order to encourage fine count spinning in India, the Committee recommended a reduction in the duty on foreign (long staple) cotton from two annas to half an anna per lb.; and in order to encourage the export trade, they recommended a full rebate of import duty paid on cotton. The Government of India did not consider these measures justified in the present non-competitive conditions of world trade, but have promised to review the matter when competitive conditions return.

5. *Import of Textile Machinery.*—The Committee recommended (*i*) that the import of machinery for new plants and extensions of old plants in accordance with the approved allocation (*vide* paragraph 2 *supra*) should be permitted freely from all countries,

(*ii*) that the import of second-hand or reconditioned productive machinery should *not* be permitted,

(*iii*) that where import of productive machinery is permitted for replacement of *existing* plant, the replaced plant should be scrapped.

In view of the existing shortage of cloth and the probable inability of India to produce enough cloth for her own requirements for some years to come, the Government of India have not been able to accept the last recommendation. As regards the first recommendation the Government of India consider that import of machinery, from countries whose currencies are scarce, should only be permitted where there is reason to suppose that the machines will be appreciably better or cheaper or will be delivered appreciably earlier than if obtained from the sterling areas.

6. For further details reference may be made to the printed publication "Report of the Post-war Planning Committee (Textiles)".

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contd.............

Statement showing spindles installed in India as on 1st January 1945 and allocation of new Spindleage.

Zone	Spindles installed as on 1st January 1945	Allocation of new Spindleage	
		Fine Spindles	Coarse Spindles
1. Bombay Surplus Area	5,941,164	171,000	75,000
2. Sind (including Baluchistan) Deficit Zone	2,216	....	100,000
3. Punjab (including Delhi) Deficit Zone	224,023	114,000	423,000
4. U. P. Deficit Zone	773,288	114,000	175,000
5. Bihar Deficit Zone	25,040	38,000	175,000
6. Bengal (including Assam) Deficit Zone	480,924	125,000 + 100,000 (Coarse and Fine mixed)	225,000
7. Orissa Deficit Zone	....	19,000	125,000
8. C. P. Deficit Zone	374,030	76,000	100,000
9. South Deficit Zone	1,955,538	190,000	375,000
10. Rajputana Deficit Zone	519,222	38,000	100,000
Total	10,295,445	885,000 +100,000 (Coarse & Fine mixed)	1,873,000

Grand Total 22,858,000

CEMENT INDUSTRY

1. *Target.*—The Government of India decided that the target of cement production by 1952 should be 6 million tons per annum. The potential capacity of existing plants, taking into account those in process of erection, is expected to be about 3 million tons by the end of 1946.

2. *Location.*—The Associated Cement Companies and Dalmias submitted plans to Government for an expansion of their productive capacity by 1·75 million tons and informed Government that their arrangements had advanced to the point where they could order plant immediately on sanction of their projects and start work immediately on the plant being made available. In view of the necessity of securing a rapid increase in production, Government accepted these plans in March, 1945. They also accepted a scheme for the poduction of cement in Jamnagar upto an estimated 1 lakh tons per year. These arrangements left a balance of 1·15 million tons of production per annum to be achieved in the first 5 year period after the war.

3. For the allocation of the balance (1·15 million tons) a press note was issued in April 1945 inviting applications from persons, other than ACC, Dalmias and Jamnagar, wishing to set up cement factories. The applications were scrutinised in consultation with Provincial Governments and the Political Department and allocations made.

Statements showing how the proposed production of 6 million tons per annum will be distributed between the various Provinces and States are attached.

ALLOCATION OF THREE MILLION TONS PER ANNUM OF CEMENT PRODUCTION

Punjab	4,50,000	tons
U.P.	1,00,000	„
C.P.	1,00,000	„
Bihar	4,50,000	„
Sind	2,50,000	„
Madras	5,30,000	„
Assam	1,75,000	
Bengal	1,20,000	„
Bhopal State	1,00,000	„
Gangpur State	1,00,000	
Tehri Garhwal State	1,00,000	„
Sirmour State	1,00,000	„
Mysore State	30,000	„
Patiala State	1,00,000	„
Porbander State	1,00,000	„
Balasinore State	1,00,000	„ (now transfered to Bombay Province.)
Gwalior State	1,00,000	„
Travancore State	50,000	„
Jamnagar State	1,00,000	„
	31,55,000	„

EXISTING CEMENT WORKS

(Excluding 3 million tons expansions).

A. C. C.

Wah (Punjab)	1,65,000	tons
Surajpur (Patiala)	1,00,000	,,
Rohri (Sind)	70,000	,,
Dwarka (Baroda)	1,80,000	,,
Porbandor (Porbander)	42,000	,,
Lakheri (Bundi State)	2,20,000	,,
Banmore(Gwalior State)	60,000	,,
Kymore (C.P.)	3,55,000	,,
Khalari (Bihar)	1,00,000	,,
Chaibasa (Bihar)	1,00,000	,,
Shahbad (Hyderabad State)	2,10,000	,,
Kistna (Madras)	80,000	,,
Madukarai (Madras)	1,80,000	,,
	1,862,000	,,

Dalmia

Dandot (Punjab)	**70,000**	**tons**
Drigh Road (Sind)	**2,00,000**	**,,**
Dalmia Dadri (Jind State)	**70,000**	**,,**
Dalmia nagar (Bihar)	**1,50,000**	**,,**
Dalmiapuram (Madras)	**70,000**	**,,**
	5,60,000	**tons**

Other Works

Sono Valley Cement Co., Calcutta (Bihar)	2,00,000	tons
Assam Bengal Cement Chhatak (Assam)	70,000	,,
Kalyanpur lime & Cement Co. (Bihar)	40,000	,,
Andhra Cement Co., Bezwada (Madras)	30,000	,,
Mysore Iron & Steel Works (Bhadravati)	20,000	,,
	3,60,000	tons

SUMMARY OF THE REPORT OF THE VANASPATI ADVISORY COMMITTEE

1. *Target of Production.*—The consumption of vanaspati rose from 38,000 tons in 1938 to 82,000 tons in 1941. The majority of the Committee consider that the target of production for 1950 should be 400,000 tons, and that the effects of expansion should be examined in 1948.

2. *Location.*—The productive capacity of the existing factories together with those under construction, sanctioned under the immediate expansion scheme or allowed under the automatic registration scheme, is estimated at 370,000 tons. Thus expansion by 30,000 tons only is necessary to reach the target figure.

The distribution of factories resulting from sanctions for expansion already given will by no means coincide with what the Committee consider the best distribution. As proposals covering almost the total expansion have been accepted, changes in the distribution will now be difficult. They strongly urge, however, that changes should be made, if possible, and that sanctions granted to parties who fail speedily to proceed with these projects should be cancelled. Any lapses or cancellations of capacity in the different regions should be properly adjusted, lapses in the western region being allotted to the northern region and lapses in the eastern region to the southern. Steps should also be taken to prevent any unauthorised increase in capacity.

3. *Raw Materials.*—The Vanaspati factories in India mainly use ground-nut oil as their raw material; Cotton-seed oil is used very little, but in the Committee's opinion, the possibilities of extending its use should be explored. To get better quality of cotton seed oils for the manufacture of Vanaspti and of oil cake for feeding cattle, cotton seeds should be delinted and decorticated before being crushed. The Committee recommend that Vanaspati factories should be permitted to be erected in cotton-seed producing areas only if they put up their own cotton seed crushing unit including machinery for delinting and dehusking.

They consider that to stimulate the production of good cotton seed oil, the erection of Vanaspati factories in cotton seed producing areas should be permitted at once and at least one factory of 25 tons daily capacity should be erected in the Punjab.

4. *Nature of Government Assistance Required.*—The Committee recommend:

(*a*) that a permanent committee be set up to examine and review standards of quality,

(*b*) that a permanent Advisory Board, closely associated with the Government Department concerned, should be set up,

(*c*) that a Central Research Institute equipped with a pilot plant should be set up,

(*d*) that 10 persons with experience of Vanaspati factories in India should be sent abroad for training every year for the next 3 years, either at Government expense of preferably at the expense of the manufacturers but Government should provide facilities, and

(*e*) that the import duty at present levied on Vegetable Products is adequate and further protection is not needed.

5. *Other Recommendations.*—The Committee makes the following recommendations regarding export:—

(*a*) It should be the aim to export at least 50,000 tons of Hydrogenated oils yearly by 1950.

(*b*) Exports of cotton seed and ground nuts and their oil cakes should be restricted in the light of the demand for them in India from time to tim

6. Government have not yet passed orders on the Committee's recommendations.

APPENDIX II

A NOTE ON THE WORK OF THE NATIONAL PLANNING COMMITTEE

by

PROF. K. T. SHAH.

The National Planning Committee was appointed in pursuance of a Resolution of the Conference of Ministers of Industries in the several Provinces held at Delhi on the 2nd and 3rd October, 1938, under the Chairmanhip of Shri Subash Chandra Bose, then President of the Indian National Congress.

1. This Conference of the Ministers of Industries is of the opinion that the problems of poverty and unemployment, of National defence and of the economic regeneration in general cannot be solved without industrialisation. As a step towards such industrialisation, a comprehensive scheme of national planning should be formulated. This shceme should be provide for the development of heavy key industries, medium scale industries and cottage industries, keeping in view our national requirements, the resources of the country, as also the peculiar circumstances prevailing in the country.

The scheme should provide for the establishment of new industries of all classes and also for the development of the existing ones.

LARGE SCALE INDUSTRIES

2. This Conference, having considered the views of several Provincial Governments, is of the opinion that pending the submission and consideration of a comprehensive industrial plan for the whole of India, steps should be taken to start the following large scale industries of national importance on an All-India basis and the efforts of all provinces and Indian States should as far as possible, be co-ordinated to that end ;—

(*a*) Manufacture of machinery and plant and tools of all kinds ;
(*b*) Manufacture of automobiles, motor boats, etc., and their accessories, and other industries connected with transport and communication ;
(*c*) Manufacture of electrical plant and accessories ;
(*d*) Manufacture of heavy chemicals and fertilisers ;
(*e*) Metal production ;
(*f*) Industries connected with power genration and power supply.

PLANNING COMMITTEE

3. With a view to doing preliminary work for giving effect to the resolutions 1 and 2, this Conference appoints a Planning Committee, the personnel of which will be announced later by the Congress President.

To enable this Committee to commence work forthwith, the different Provincial Governments are requested to make suitable financial contributions. The Committee will submit its report to the Congress Working Committee and to the All-India National Planning Commission, provided for hereafter, within four months of the commencement of its sitting.

4. This Conference is further of opinion that a commission fully representative of all-India, including the British Indian Provinces and the Indian States, should be appointed for the purpose of giving effect to Resolutions 1 and 2 after the consideration of the recommendations of the Planning Committee. The Commission, to be called the All-India National Planning Commission, shall consist of the following members with powers to co-opt :—

(*a*) One nominee of the Government of each province or State co-operating in this work ;
(*b*) Four representatives of the Federation of Indian Chambers of Commerce

(*c*) A representative of the All-India Village Industries Association, and

(*d*) All members of the Planning Committee mentioned in Resolution No. 3.

The personnel of the Committee, as originally set up by Shri Subhas Chandra Bose, consisted of :—

1. Pandit Jawaharlal Nehru, subsequently Chairman of the N.P.C
2. Sir M. Viswesvaraiya (subsequently resigned.)
3. Sir Purshottamdas Thakurdas.
4. Shri Ambalal Sarabhai.
5. Shri A. D. Shroff.
6. Dr. Nazir Ahmad.
7. Shri K. T. Shah.
8. Dr. Meghnad Saha
9. Shri A. K. Saha
10. Sir J. C. Ghosh.
11. Dr. V. S. Dubey

The Committee met for the first time from December 17th to December 21st 1938. Detailed Questionnaire was prepared for circulation amongst Governments, public bodies concerned with the economic development of the country, economists, and others interested in the subjects.

The following resolution was adopted by the Committee on River Commissions:—

" The Planning Committee is of the opinion that the various Provincial Governments should create Provincial and, where necessary, inter-provincial River Commissions for the regulation, development and control of the various rivers and waterways for the purpose of providing :—

(*i*) water for agriculture and industries ;

(*ii*) hydro-electric power ;

(*iii*) cheap transport ;

(*iv*) prevention of erosion silting, and floods ; and

(*v*) safeguarding the health of the people.

The Commission should also consider and deal with problems of shifting of river beds ".

Three months time limit was given within which the Questionnaire was to be answered but it had to be extended every time. When the Committee met again in June 1939, not all the Governments, public bodies, and individuals amongst whom the Questionnaire had been circulated, had replied. A tentative budget for the Committee was also prepared, and an office organisation set up.

At the end of the first Meeting, the Chariman, Pandit Jawaharlal Nehru, gave a Note on the Congress Policy *visa-a-vis* National Planning Committee, in which he explained the seeming opposition between the claims of small industries, and modern large-scale mechanised Industrialisation on a National scale. He also drew attention to the Karachi Congress Resolution on Fundamental Rights, which the Congress was determined to assure to everyone of the Indian people, and quoted another Resolution of the same body :—

" The State shall own or control key industries and services, mineral resources railways, water-ways, shipping and other means of public transport ".

The Committee met from June 10th to June 17th 1939, when the work of the National Planning was more thoroughly organised. 29 Sub Committees were appointed with specific terms of reference. These related to Agriculture (8), Industries (7), Labour and Population (2), Commerce (1), Finance (2), Currency, Banking and Insurance (2), Education and Health (2) and Housing (2), Transport and Communications (2), and a sub-committee to consider Woman's Role in Planned Economy. In addition, there were some *ad hoc* Sub-Committees to consider such items as Publicity, Statistics, etc. Shri K. T. Shah was appointed Honorary General Secretary and Ex-officio Member of all Sub-Committees to co-ordinate their work. Tentative list of " Key ", " Defence Industries " and " Public Utilities " were also prepared

The following Resolution on licensing was passed :—

"This Committee is of the opinion that no new factory should be allowed to be established and no existing factory should be allowed to be extended or to change control without the previous permission in writing of the Provincial Government. In granting such permission the Provincial Government should take into considerations such factors as desirability of location of industries in a well distributed manner over the entire province, prevention of monopolies, discouragement of the establishment of uneconomic units, avoidance of over-production and general economic interest of the province and the country. The various provincial Governments should secure for themselves requisite powers for the purpose, if necessary by undertaking suitable legislation."

A general note on the aims and objects, as well as the instructions to the Sub-Committees were also issued.

Several Members were also co-opted at the instance of some Governments, or public organisations, *e.g.*, Shri Walchand Hirachand, Prof. Rakha Kamal Mukherji, Shri N. M. Joshi and Rani Rajwade. Ministers of Industries or Development in the several Provinces, as well as the States which had co-operated and given grants towards the expenditure of the National Planning Committee were invited to attend the Sessions whenever Plenary Sessions were held.

The scope and nature of the National Planning Committee's work was clearly defined.

"3. What is planning ? Planning under a democratic system may be defined as the technical co-ordination, by disinterested experts, of consumption, production, investment, trade and income distribution in accordance with social objectives set by bodies representative of the nation. Such planning is not only to be considered from the point of view of economics and the rising of the standard of living, but must include cultural and Sprit level values and the human side of life.

4. Such a plan thus requires a social objective and the power and authority to give effect the Plan. If this power is limited in any way or there are other restrictions, political or economic, which come in the way of the working out of the Plan, no comprehensive planned economy can develop. Real Planning can only take place with full political and economic freedom, and a national plan must therefore be based on India having sovereign authoirty. At the same time, in view of the present circumstances prevailing in the country and the restrictions that have been imposed upon us, the Plan must also indicate what is immediately feasible and what steps should be taken, even under existing conditions, to work towards the realisation of the Plan and to secure the fullest possible utilisation of the national resources for raising the standard of life. Such steps must be in keeping with the scheme of a planned economy, and in no event must anything be done which might come in the way of that Plan.

5. There is a large measure of agreement in the country about the social objectives and yet there are vital differences also. It is possible that many of these differences might be resolved as a result of this enquiry. To some extent these objectives have been indicated by the National Congress in a number of resolutions and by the general policy it has pursued. We must adhere to this general policy and keep these objectives in view. Refernce has been made to these in the Chairman's memorandum.

6. The Congress has laid stress for many years on the development of scottage industries and has sought to direct the attention of the country to the condition of the villagers. We cannot forget the emphasis or ignore the fact that all progress in India must be measured in terms of raising the standards of India's millions. An apparent conflict has arisen in the minds of some between the claims of cottage industries and those of large scale industries. This conflict is largely one of emphasis. It is clear that in India today the development of cottage industries on a vast scale

is essential for the well being of the masses. It is equally clear that the rapid development of large scale machine industry is an urgent need of the country. Without industrialisation no country can have political or economic freedom, and even cottage industries cannot develop to any large extent if economic freedom is absent. Without industrialisation also the rapid and effective raising of the standard of the people is not possible. Key industries, defence industries and Public Utilities must be developed on a large scale. Even the development of cottage industries is helped greatly by the supply of cheap power and suitable machinery for cottage use which are obtainable from the working of large scale enterprises. To some extent handicrafts and large scale industrial enterprises are complementary to each other. The problem before the country, therefore, is one of co-ordinated growth in both directions and the avoidance, so far as is possible, of conflict between cottage industry and large scale industry.

7. The emphasis of the Congress on cottage industries is chiefly due to its desire to have a more equitable system of distribution and to avoid the evils that have resulted from indiscriminate and uncontrolled industrialism. Distribution is the vital corner stone of any planned economy and the evils of industrialism can and should be avoided if there is an equitable system of distribution. In the National Plan for India a proper scheme of distribution must therefore be considered as essential.

8. The resolution of the Delhi Conference of Minister of Industries which led to the formation of the National Planning Committee is a clear direction to the Committee to hasten industrialisation and calls for the development of heavy Key Industries, medium scale industries and cottage industries. These are the terms of reference of this Committee. It should be further remembered that the Congress has laid down in its resolution on Fundamental Rights that " The State shall own or control Key Industries and Services, Mineral Resources, Railways, Waterways, Shipping and other means of Public Transport ".

9. The principal objective of planning the national economy should be to attain as far as possible, national self-sufficiency and not primarily for purposes of foreign markets. This does not exclude international trade, which should be encouraged, but with a view to avoid economic imperialism. The first charge on the country's produce, agricultural and industrial, should be to meet the domestic needs of food supply, raw materials and manufactured goods. But outlets for surplus goods may be explored to meet the requirements of India's international indebtedness.

10. The fundamental aim to be kept in view is to ensure an adequate standard of living for the masses. An adequate standard of living implies a certain irreducible minimum plus a progressive scale of comforts and amenities.

11. A really progressive standard of life will necessitate the increase of the national wealth five or six times. But for the present the minimum standard which can and should be reached is an increase of national wealth of between two and three times within the next ten years. It is with this object in view that we should plan now.

12. Planned advance has to be measured by certain objective tests from year to year. These may be laid down as follows :—

(*i*) The improvement of nutrition from the standard of irreducible minimum requirement of proteins, carbohydrates and minerals (as well as necessary protective foods) having a calorific value of 2,400 to 2,800 units for an adult worker.

(*ii*) The improvement of clothing from the present consumption of about 15 yards on an average to at least 30 yards *per capita* per annum.

(*iii*) Housing standards to reach at least 100 sq. ft. *per caqita.*

13. Viewed from another standpoint the following indices of progress should be borne in mind :—

(*i*) The increase in agricultural production ;
(*ii*) The increase in industrial production ;
} To meet at least the requirements laid down in 12. (*i*) and (*ii*) above.
(*iii*) The diminution of unemployment ;
(*iv*) The increase in *per capita* income ;
(*v*) The liquidation of illiteracy ;
(*vi*) The increase in public utility services ;
(*vii*) Provision of medical aid on the basis of one health unit for 1000 population ;
(*viii*) The increase in the average expectation of life.

Statistical data have to be collated and compared with a view to measure the progress of the Plan from time to time. The development of statistical work will be necessary to keep pace with the development of planning.

14. The different sectors of the Plan have necessarily to be co-ordinated. The essence of planning is an advance on all fronts. There must be agricultural planning, the object being that the country should be at least self-sufficient as regards foodstuffs measured in terms of the food-index given above, and as regards quantity of raw materials, this should be raised by a pre-determined percentage. Soil conservation, afforestation, grass land management, flood control and river management and improvement of inland navigation and transport, improvement of livestock and fodder supply, are items in the planned programme which have not yet been taken up systematically. Power development and the conservation and development of coal and other kinds of fuel for industrial power also demand planning. More important is the planning of different kinds and types of industries, large medium and cottage, which alone may effectively mitigate the present pressure of population on the soil. Within a decade the aim should be to produce a balanced economic structure in which about half the population would depend on agriculture.

15. Education, general and vocational, and developmental research also have to be included in a planned programme. The place and organisation of public services should be in keeping with the requirements of the Plan.

16. No planning can succeed if the rate of economic progress is outrun by the rate of increase in population. In the planned economy of India emigration shall not be based on the deliberate policy of developing population so as to create a surplus to settle in other countries but such surplus may be allowed to emigrate through agreements with other countries with due regard to the rights of such settlers in those parts.

t17. A complete scheme of planned economy is a vast undertaking requiring full information and data and the willing co-operation of the technical experts, industrialists, administrators and the public at large. It is a progressive scheme being continually adjusted to changing conditions and always taking advantage of the experience gained in its working. The National Planning Committee is obviously not in a position to draw up such a complete scheme nor does it intend to do so at this stage. What is intended now is to lay the foundation of a planned economy on which the future structure can be built. But even at this stage the full picture must be envisaged, a complete outline drawn up, which can be filled in later as opportunity comes and further materials are available. India is one of the very few countries in the world which has practically all the resources within its borders of building up a planned system."

At a meeting of the Chairman and Secretaries of Sub-committees held in Bombay on the 12th to 14th February 1940, the following points of Public Policy were agreed to :—

It will thus be seen that the National Planning Committee has already gone far in laying down the principle that Defence Industries, Key Industries and Public Utilities should be either State owned or controlled. A discussion took place at the meeting on the 11th February as to which of these should be State-owned and the measure of control in regard to the others.

In regard to Defence Industries, it was decided that they must be owned and controlled by the State. Regarding Key Industries, the majority were of opinion that they should also be State-owned, though a substantial minority considered that State control would be sufficient. It was made clear, however, that any control of such industries must be a rigid one.

Public Utilities, it was also decided, should be owned by some organ of the State, such organ being either the Central Government, Provincial Government or a Local Board. It was also possible to have something of the nature of the London Transport Board controlling such Public Utilities.

In regard to the other important and vital industries, which are not Key Industries, or Defence Industries, or Public Utilities, no special rule was laid down. But it was made clear that the very nature of planning required control in some measure. What this measure should be might vary with the industry in question.

As regards the agency in State-owned industries it was suggested that as a general rule, an autonomous Public Trust would be suitable, the nature of such Trust being varied in the case of different industries. Such a Trust would ensure public ownership and control, but should avoid the difficulties and inefficiency, which creep in from a democratic control. This suggestion was approved of by some members present, while others thought that now definite rules should be laid down and the sub-committees should be left free to make their own recommendations. It was also suggested that there might be co-operative ownership and control. These suggestions are being forwarded to the Sub-committees for their consideration. It is open to them to make their own recommendations.

In regard to private industries aided or supported by the state, the measure of State control is likely to be greater than in unaided industries. The State may appoint directors or representatives to see that the State Policy in regard to planning is carried out. Such representatives of the State will not be supposed to interfere in the day to day administration of the industry, but, it will be their function to see that the industry is co-ordinated with the National Planning Scheme and the general policies of the State are being carried out by the industry. Any planning will involve a close scrutiny of the development of industry in all its branches and a periodical survey of the progress made. It will mean the training up of the technical staffs necessary for the further expansion of industry and the State may require industries to train up such staffs.

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In the event of the private industry being taken over by the State, fair compensation should be paid. In calculating this compensation, a number of factors will have to be taken into consideration, so that the interests of the general public do not suffer and at the same time the owners of the industry, are not victimised. It was not thought necessary to go into any further details in regard to this matter at this stage.

The relation of industries on a large-scale to village and cottage industries was also considered. The fact that the National Congress has laid great stress on the development of cottage industries, and more specially on hand-spinning and hand-weaving, was to be co-ordinated in the National Plan. It may not be possible at this stage to define accurately the scope of each but in view of the Congress policy, which may be later the State Policy, nothing should be done to erect barriers to the carrying out of such a policy.

Therefore, it should be laid down that any large-scale industry, which may come into conflict with a particular cottage industry encouraged and supported by the State, should itself be controlled by the State. Such control will prevent any conflicts arising and co-ordination will be easy.

The Meeting also passed the following resolution in regard to the place of women in Planned Economy :—

"In the scheme of Planned Economy, every care should be taken to secure for woman, irrespective of civil conditions, not only theoretical equality of opportunity for training and employment, but also to see that such training and particularly employment are made available to her, as the consequence of the Planned Economy and at the instance of the Planning Authority."

Between June 1939 and September 1940, several Plenary Sessions of the National Planning Committee were held, and reports submitted by the several Sub-Committees from time to time, whether Interim or Final, were considered and decisions taken by the Committee on each of them considered by itself.

Informal discussions were also held from time to time at Allahabad and Bombay during the same period, between the Chairman and Secretaries of Sub-Committees and the local members of the National Planning Committee, who were available in each case and ideas exchanged and certain general principles elaborated.

When, however, the War broke out early in September 1939, not all the Sub-Committees had reported; and the work of the National Planning Committee was, therefore, nowhere near completion.

Soon after, the arrest and imprisonment of the Chairman followed, which further impeded the work of the Committee. This was more so, as the Chairman was prevented, while in jail, from official contacts in communication with the National Planning Committee.

In the years that followed, from 1940 to 1945, the National Planning Committee had a nominal existence, with a barest staff necessary to keep up that existence. At first some Members had promised to contribute towards even this irreducible minimum of expenditure but by the end of 1941, all these were exhausted and suggestions were thrown out to wind up the Committee.

It was not deemed proper, however, to wind up the Committee, even apart from the legal difficulty of dissolving it under the then existing circumstances. The Honorary General Secretary kept it up on his own, though no concrete work was done.

Immediately after the release of the Chairman in June 1945, steps were taken to revive the Committee. An informal meeting was held in September 1945, and a formal meeting in November 1945. New or revised Instruction to Sub-Committees were then issued. They were asked to revise and bring up-to-date their reports, in cases where they had been submitted already, and those Sub-Committees which had not made Interim Reports till then were called upon to finalise the same. Those which had not submitted any report were called upon to submit their Reports within a given period.

Five Sub-Committees had not reported by the time the National Planning Committee reassembled in November 1945. These were:—

(1) Trade (section relating to Domestic Trade).
(2) Power and Fuel.
(3) Technical and Scientific Education.
(4) Fisheries.
(5) Manufacturing Industries.

These reports have since been circulated amongst Members.

At the same time a special Sub-Committee was appointed to consider certain urgent matters on priorities in development, *viz.* Food, Housing and Education. This was asked to submit its report within three months. The National Planning Committee was expected to meet about March 1946 to consider the same along with the rest of the material that came before it.

In view of the developments in other fields, however, it was impossible to hold a formal meeting of the National Planning Committee in the months that followed, though most of the Sub-Committees, which had not reported, did submit their Reports during this period and also the special Sub-Committee to consider priorities in Food, Education and Housing.

* Please see Addendum at the end of this note.

ADDENDUM

RESOLUTIONS PASSED BY THE NATIONAL PLANNING COMMITTEE

The Reports of the following Sub-Committees, which had been previously circulated to the Members of the National Planning Committee, were considered :—

1. Engineering Industries (including Transport Industries)—Final Report.
2. Chemical Industries—Interim Report.
3. Manufacturing Industries—Interim Report.
4. River Training & Irrigation—Final, Part I.
5. Population—Final.
6. Animal Husbandry & Dairying—Final.
7. Labour—Final.
8. Currency & Banking—Interim.
9. Insurance—Interim.
10. Rural Marketing & Finance—Final.
11. National Housing—Final.
12. Power & Fuel—Interim.
13. Horticulture—Final Report.

Engineering Industries including Transport Industries

(II/5)

The Final Report of the Sub-Committee on Engineering (including Transport Industries) was presented by Mr. Ratanchand Hirachand, a Member of the Sub-Committee, on the 2nd May 1940. The Secretary, the Hon'ble Mr. M. N. Dalal, was unable to be present. The consideration of the Report was concluded the same day. The following resolutions were adopted :—

(*i*) The National Planning Committee having considered the Report of the Engineering Industries and Transport Industries Sub-Committee resolve that this should be forwarded to the National Planning Commission, when this is constituted. The Committee agree and are firmly of opinion that the establishment of a heavy engineering industry for the manufacture of heavy machinery of all kinds, heavy forgings, boilers, machine tools, locomotives, railway carriages and wagons, heavy engines etc., is essential for the advancement of India, the development of her industries and for the organisation of defence. Such a key industry is the foundation for all Planning. It is necessary that all machinery required in India should be made in India, except in very special cases where this may not be considered absolutely necessary and economically feasible.

(*ii*) The Committee have appreciated the arguments advanced in the Report for the concentration of this heavy mechanical industry in one National Workshop situated in the coal mining area of Bihar-Bengal. They are of opinion, however, that both these aspects of concentration and location should be further examined by the Planning Commission. While the paramount consideration must be the national interest from the point of view of planned economy, existing plants producing heavy machinery should be encouraged to function where they can do so on an economic basis and advantageously to the nation. It should further be investigated how far the machinery required can be made, within the scheme of planned economy, in separate plants, situated in different parts of India. But in any event a major factory for producing heavy machinery etc. is necessary and should be started at a suitable centre. The location of such a factory should be decided upon after considering all the relevant factors, such as availability of raw material and power, including hydro-electric power, climate, and possibility of enemy action. It should be further borne in mind that such plants for heavy machinery do not come into conflict with the small tools made by the village blacksmiths or other craftsmen, and thus throw considerable numbers of people in the villages out of employment. The objective aimed at should be to prevent the import into India of foreign machinery and other goods, as far as possible and economically desirable, and to fit this into the larger scheme of planned economy.

(*iii*) The Committee further agree and recommend strongly that the manufacture of automobiles and other articles and machinery placed in the light Mechanical group should be undertaken at an early date in India. Only one automobile factory appears to be possible under existing circumstances. The location of this should be fixed after further consideration.

(*iv*) The building up of the Electrical industries as recommended in the Report is considered essential but their location may be decided upon later.

(*v*) All these industries being key industries, their ownership or control should, in accordance with the previous decisions of the National Planning Committee, rest with the State. The control in such cases should be adequate and effective. Existing plants during the period of transition, as well as small plants, may, however, remain in private hands, but all such plants will be subject to such control by the State as may be necessary in the interests of Planning. The State referred to is the National Free State of India, and not a State controlled by foreign authority.

(*vi*) In the transitional period the State may encourage private capital to start such plants by guaranteeing interest for a period of years, imposing heavy duties on foreign articles and otherwise, provided always that the State exercises rigid control of all such undertakings in the interest of national planning. A system of licensing, as previously recommended by the National Planning Committee, is also recommended with this particular object in view.

(*vii*) Control of foreign companies and foreign vested interests by the State is essential for Planning and for the success of these enterprises.

(*viii*) The Committee agree that cheap and efficient transport is essential for industrial development, and approve of the suggestion that a Central Board of Communications be established.

(*ix*) The Committee also approve of a Sales Organisation being set up by the State.

(*x*) As regards the agency for the management of State-owned concerns, the Committee consider that this question should be further investigated. It may not be necessary or desirable to have the same type of agency for all such concerns. In any event, full advantage should be taken of the technical and managerial knowledge available, and the co-operation of well-established firms should be sought.

(*xi*) The Committee do not consider it necessary to deal with, or express their views on, the other recommendations and arguments contained in the Report, which will no doubt be considered in greater detail by the Planning Commission.

Chemical Industries

(II/3)

The Interim Report of the Chemical Industries Sub-Committee was presented by Dr. J. C. Ghosh, Chairman of the Sub-Committee, on the 2nd May, 1940. Prof. R. C. Shah, Secretary of the Sub-Committee, was also present. Discussion continued on the 3rd May. The following resolutions were tentatively adopted :—

"(*i*) In order that Planning may be accurate and effective, a census of all forms of production, including cottage industries, is necessary, and legislation for this purpose should be undertaken.

(*ii*) The rapid development of the dye-stuff industry is considered necessary; and for this purpose it is recommended that a dye-stuff corporation should be formed as soon as possible. This industry is likely to require State-aid, and it may be either subsidised and controlled by the State, or owned by it. The Corporation should, in the initial stages, concentrate on the production of particular direct and basic colours, naphthols, and bases, as indicated in the appendix to the report. When the factory or factories under the Corporation start operations and produce dyes etc. of standard quality in sufficient quantity, the importation of dyes and intermediates should be prohibited under license for special reasons.

(*iii*) The immediate establishment of a synthetic ammonia plant is recommended with a view to making India self-sufficient with regard to synthetic nitrogen fertilisers. Such a factory should produce at least 50,000 tons of ammonium sulphate which is approximately the present deficit in production in India.

(*iv*) The question of the proper use of coal should be considered later, along with the recommendations of the Power & Fuel Sub-Committee. The National Planning Committee, however, agree generally with the recommendations that : (*a*) the use of raw coal for domestic purposes which involves waste and causes the smoke nuisance, should be prohibited ; (*b*) a sufficient quantity (3 million tons) of coal should be distilled to produce the soft coke necessary for this purpose ; (*c*) the tar obtained from this process, as well as from other factories now in use, should be processed to yield the road tar necessary for improving roads, ammonium sulphate for use as fertilisers, and the chemicals and intermediates essential for the dye and drug industries.

(*v*) The indigenous synthetic drug industry should be encouraged by a protective duty on synthetic drugs imported from abroad, and by suitable modification of the excise regulations relating to the spirits required for the drugs.

(*vi*) We recommend that an industry for the manufacture of explosives be started, and that this be state-owned.

(*vii*) Crude petroleum should be imported into the country and subsequently refined in this country, in accordance with the recommendation of the Tariff Board on this subject, and the import of petrol and kerosene be subjected to a heavy duty.

(*viii*) Scientific research for industrial purposes is necessary for the proper utilisation of many products in manufactures. There should be a State Department for Industrial Research, which should establish a National Chemical Laboratory, as well as such other laboratories as may be considered necessary, encourage research work in Universities, and give facilities for doing research work in different parts of the country, including grants-in-aid to co-operative research work. The National Chemical Laboratory should especially investigate the possibilities of using various chemicals as substitutes, of obtaining necessary chemicals from the available resources, and of starting manufactures as suggested in the interim Report.

(*ix*) Heavy chemicals should be protected for a definite period from foreign competition. Such raw materials and chemicals, which are not available in the country, for example, sulphur, arsenic, lead, tin, etc., and some of their compounds, should be allowed into the country free of import duty.

(*x*) The Chemical Industries, and more particularly the heavy chemical, and tar and petroleum distillation and associated industries, should be owned or controlled by the State."

Manufacturing Industries Sub-Committee

(II/6)

The Interim report of the Sub-Committee on Manufacturing Industries was presented by Mr. Ambalal Sarabhai, Chairman of the Sub-Committee, on the 3rd May 1940. Dr. Nazir Ahmad, Secretary of the Sub-Committee was also present. Discussion continued on the 5th and 8th May. The following resolutions were tentatively agreed to.

1. In the matter of location of industries, the claims of the industrially backward areas should be given special consideration, subject to economic considerations justifying the same.

2. With regard to the location of industries, equal opportunities should be given to every federating unit, subject to economic consideration, of employment of labour and development of natural resources, provided similar conditions of work and wages prevail in the unit under consideration.

3. As regards the size of the units, it is recommended that no unit should be so large as to be outside the reach of competition by smaller, but economic units. Units smaller than the economic units should not ordinarily be allowed to be started except for experimental or pioneer purposes. The size of the economic unit will be decided in the case of each industry by qualified authority.

4. The power, fuel and mineral resources of the country should be fully conserved, scientifically developed and utilised. We also recommend that where the power, fuel, and forest resources are available, they should be utilised. The details of working out this principle falls more properly within the scope of the Mining and Metallurgy as well as the Power and Fuel Sub-committees.

5. The Defence Industries (as mentioned on page 102 of the red-book) should be State-owned in peace and war. The Planning Authority should also ensure while laying out the plan, to see that non-State owned works, carrying on peace-time activities for private consumption, other than those which constitute Defence Industries, should nevertheless be so equipped and organised that they are capable of being switched over to State service for additional war-time requirements.

6. Public utilities should, as a general rule, be managed by public autonomous trusts.

7. On principle we are opposed to monopolies in private hands; and therefore, all monopolies which are injurious to public interests, or whose acquisition is beneficial to public interests, should be acquired by the State. We recognise, however, that in certain industries it may be inevitable to combine manufacturing units forts the purpose of better economic production or selling organisation with a view to prevent profiteering on the one hand and unhealthy competition on the other. In all such cases the units or combines should be under adequate State supervision and control.

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8. We recommend that, so far as possible, new industrial concerns should be located in suitably developed open areas, where the necessary facilities for the running of such industries and the proper housing of the industrial population are provided.

9. We recommend that all reasonable measures for the improvement of conditions of work inside the factory, such as the elimination or reduction to a minimum, of dust, trash, smoke, etc., regulation of heat, moisture, etc., provision of light, etc., should be adopted in all industrial concerns.

10. We recommend that a reasonable part of the gross profits realised by an industrial concern should be earmarked for depreciation before any other allocation and the sums earmarked shall be reserved for this purpose.

11. We recommend the establishment of an *Institute of Industrial Psychology*, whose services should be available to the industry.

12. In foreign countries with which India has substantial trade, Trade Commissioners of Indian nationality should be appointed to act as liaison officers, to disseminate information regarding the Indian procedure, to facilitate transactions between buyers and sellers, to make periodical reports regarding the trend of markets in their areas, and to help in every possible way the concerns engaged in the buying or selling of Indian goods. In the appointment of these Trade Commissioners, their qualifications for such work, including their knowledge of industry, trade and commerce, should be the governing consideration.

13. When any foreign country has established quota arrangements or other restrictions, in their dealings with India, similar restrictions may be, established

from the Indian point of view, wherever it is necessary. Clearing agencies for any such purposes must be established, so that the whole of the foreign exchange arising out of trade operations passes through the hands of the State, and may be used by the Reserve Bank as and when it may be necessary for state purposes.

14. Qualified men should be periodically sent out in the principal consuming or potential markets of Indian goods, to make an extensive survey of the changing conditions of the market, and to submit reports there-upon. Where Indian produce is exported, efforts should be made to see whether the articles manufactured from such material cannot be exported from India in a manufactured form, or whether some intermediate transformation of the raw material, so as to add to its value before it leaves India, cannot be achieved.

15. *Museums* should be established both in India and abroad for the display of the raw materials and finished goods of Indian manufacture. In each case special emphasis should be laid on the type of articles which are generally consumed in that centre, or for which there is a likelihood of good demand.

16. Standardisation of weights and measures on an all-India basis should be carried out at an early date, so that a uniform system of weights and measure is applicable to the whole country. For this purpose a Bureau of Standards should be established at a central place, and this should collaborate with international organisations set up for such purposes. If other conditions permit, the Metric System should be encouraged and adopted.

17. Transport and storage facilities, including cold storage, both in transit and warehouses, should be provided, extended and improved for Indian produce of all kinds according to its requirements.

18. Arts and crafts emporiums for the encouragement of local industries especially small-scale and cottage industries, should be provided by the Provincial Governments and Local bodies.

19. The grading of all agricultural produce in order to ensure proper grades and uniform quality should be completed at an early date, and meaures such as the Indian Agricultural Produce Act, Indian Foods and Drugs Act, etc. should be passed and applied wherever necessary. Measures on the lines of the Cotton Ginning and Pressing Factories Act should also be passed and enforced to check malpractices and adulteration of superior with inferior varieties.

20. It is desirable to institute a system of licences for all businesses, more especially the distribution of industrial products, and such licences should be issued by statutory bodies. Amongst the conditions attached to such licences should be one, which would render the licence liable to cancellation, if the conditions laid down for the benefit of the public are violated.

21. Railway freights and classifications should be examined from the point of view of marketing of industrial products ; and wherever the incidence of freight adds considerably to the transport charges and acts as a drag on the industry, the freight should be reduced by an appropriate amount, with due regard to safeguarding other interests concerned.

22. We feel that by judicious adjustment it may be possible to establish a mutually beneficial co-operation between large scale and cottage industries as a whole. We favour, therefore, looking at the constituent parts of an industry and apportioning production in such a manner between large scale and cottage industry as to provide for legitimate expansion of both and utmost contribution to national well-being. We recommend that there should be a permanent Board of Research to go into the changing economics of large scale and cottage industries, including its reactions on those employed in the cottage industry and a much larger number of consumers, as a result of which the State may decide their respective scope.

23. We recommend that suitable facilities should be provided in each Province, with special regard to the needs of the Province in the matter of industry and commerce, for training sufficient number of men and women for all kinds of posts in

the industrial and commercial concerns. In this connection, special regard should be paid to the training of men for the higher posts, who can design new types of machinery, erect large factories, undertake original industrial investigations with a view to increasing efficiency and reducing wastage and cost, and possess initiative and organising capacity. Where such facilities already exist, they should be expanded in the appropriate manner; where no such facilities exist, new departments, schools or colleges should be opened.

24. Apprentice schemes for the training of apprentices in different industries should be initiated in each area. These schemes should be worked out to give the best results, with due regard to the special interests of each industry, if necessary by legislation.

25. In order to absorb the trained men and women turned out from the industrial institutes, apprentice classes, etc., it should be made compulsory on each industrial concern to employ a certain percentage, which would be determined with due regard to its special interests and requirements, of technically trained men.

26. In special cases the services of highly qualified foreigners may be engaged on a contract basis, to impart training in special subjects in India.

27. Until such time as adequate facilities are available in India for the training of men and women for all kinds of work in industrial concerns, it would be necessary for Indians to receive this training in suitable technical institutions and industrial organisations in foreign countries. We recommend that in such cases the State should furnish full information regarding such institutions, make the necessary arrangements for the training of Indians abroad, and, in the case of qualified and deserving persons, should render them such financial and other help as may be necessary. It should be a part of the Stores Purchase policy of the State to stipulate for the training of men selected by the State.

28. It is recommended that a Standards Institution should be established at an early date. This Institution should prepare and issue standard specifications for various articles manufactured in India. Such standard specifications will, on the one hand, safeguard the purchaser by ensuring a generally suitable quality and performance at a reasonable price, and on the other safeguard the manufacturer by minimising unfair competition.

This Institution should work in close collaboration with the central standardising bodies in the various parts of the world.

29. The manufacture of machinery of all types should be undertaken in India after a careful survey of the present requirements and resources, and should be expanded progressively in proportion to our industrial development in the future. For this purpose, an immediate survey of the following materials which are essential for the manufacture of machinery should be undertaken, and this survey should be repeated every five years to assess the extent to which, as a result of the fullest possible exploitation of our resources, India is able to produce the materials required for the manufacture of machinery:

Antimony
Asbestos
Ashphalt
Bauxite
Camphor
Cement
Crome Ore
Cobalt
Copper
Cryolite
Felspar
Graphite
Iodine
Iron Ore
Lead; Magnesite
Manganese
Mercury
Molybdenum
Nickel
Phosphate-rock
Platinum
Potash
Rubber
Salt
Sulphur
Tin
Tungsten Ore
Vanadium
Vanadium Ore
Zinc

River Training and Irrigation

I/2

Part I of the Report of the Sub-Committee, dealing with Irrigation, was presented by Nawab Ali Nawaz Jung, the Chairman of the Sub-Committee, on the 3rd May 1940. Mr. U. N. Mahida, Secretary, was also present. Discussion continued on the 4th May, and the following resolutions were passed.

1. With a view to obtain a high degree of co-ordination and correlation of effort, the establishment of a National Water Resources Board, for the conservation and utilisation of water resources in the country, is recommended.

This Board will deal with irrigation, navigation, flood-control, river management, hydro-electric power and use of water for dietetic purposes.

The functions and duties of the Board will be to advise and assist the Administration through :

(*a*) the preparation, development, and maintenance of comprehensive plants ;
(*b*) surveys and research ;
(*c*) the analysis of projects for co-ordination and sequence.

2. Progress at present is greatly hampered owing to uncertainty of water titles, and we recommend that Inter-Provicial-State Commissions be arranged for reconciling the various interests and conflicting water rights.

These Commissions will consist of one representative each from the Provinces and major States, interested in the waters, and two independent members from the Water Resources Board.

3. There is great need of extending the system of permanent gauging stations on all rivers concerning which records of flow are important for planning water resources.

4. We also suggest the systematic undertaking of research and investigation to determine the extent and availability of the ground-water supplies, and the relation between their use and depletion.

5. It is important that our rivers should be developed to the greatest possible extent and effectively utilised at the earliest practicable date. For this purpose conservation of water by storage has become a matter vital to the future growth and development of the country, and we recommend the initiation of extensive reservoir systems commensurate with the needs of the country.

6. We recommend that no time be lost in drawing up and carrying out a construction programme for an addition of about 12 million acres under 'Government Canals and Reservoirs' in the ensuing two decades.

7. We recommend that a detailed land classification be undertaken to determine whether the land is worth the water that is to be applied to it.

8. We recommend that steps be taken for agricultural planning to be tied in closely with the water control programme. Where perennial irrigation is to be practised, a suitable system of agriculture should be developed before hand.

9. Where the irrigational interests are large, we recommend that Co-operative Organisations should be established for :

(*a*) the careful preparation of land for irrigation ;
(*b*) the distribution of water under fixed rules and discipline ;
(*c*) the carrying out of the minor drainage operations, and
(*d*) takings steps for the prevantion of swamps, stagnant pools, the spread of malaria, etc.

10. We recommend that suitable laws should be enacted to entrust the upkeep of the numerous minor tanks to the village communities concerned.

11. We consider that irrigation management should be recognised as a distinct profession and recommend that steps be taken for providing the requisite training.

III/2

The Final Report of the Population Sub-Committee was presented by Dr. Radhakamal Mukherjee, Chairman of the Sub-Committee, on the 4th May 1940. Mr. B. C. Guha, Secretary of the Sub-Committee, was also present. Discussion continued on the 9th May. The following resolutions were passed.

1. We agree with the view that the size of the Indian population is a basic issue in national economic planning, in so far as its unrestricted increase, out of proportion to means of subsistence, affects adversely the standard of living ; and tends to defeat many social and ameliorative measures.

The problem has been fundamentally caused by the lack of all-round, co-ordinated economic development. While measures for the improvement of the quality of the population and limiting excessive population pressure are necessary, the basic solution of the present disparity between population and standard of living lies in the economic progress of the country on a comprehensive and planned basis.

2. With a deficit in food supply estimated at about 12% of the requirements of the population, and chronic under-nutrition and unbalanced dietary of the masses, India should utilise her waste lands, and improve her yield per acre as much as possible.

We recommend that, in relatively sparsely populated areas, land reclamation should be promoted through Rural Settlement Departments ; and planned into Provincial migration from over-crowded regions should be encouraged, establishing zones of agricultural colonisation in newly reclaimed areas as well as for industrial purposes. The State should own such agricultural areas to avoid the creation of new vested interests.

3. We consider that the prevalent under-nutrition and malnutrition should be tackled by systematic crop planning, stressing the production of heavy-yielding energy-producing and also protective food-stuffs. We recommend in this connection the establishment of a Central Nutrition, Board with regional boards, for developing a national nutritional policy in co-ordination with the Departments of Agriculture and Public Health. There should also be nutrition research institutes functioning under these Boards.

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The present food resources should be more effectively utilised and supplemented particularly by vegetable or animal proteins, so as to give a more adequate and balanced diet ; and an attempt should be made to improve food habits and methods of food preparation of the people, so that they may obtain more nutritive values from the foods consumed.

4. In the interests of social economy, family happiness and national planning, family planning and a limitation of children are essential ; and the State should adopt a policy to encourage those. It is desirable to lay stress on self-control, as well as to spread knowledge of cheap and safe methods of birth control. Birth control clinics should be established, and other necessary measures taken in this behalf and to prevent the use or advertisement of harmful methods.

5. We consider that the gradual raising of the marriage age and discouragement of polygamy are desirable in the interests of the limitation of the size of the family.

6. The removal of barriers to inter-marriage is desirable for eugenic and other social reasons.

7. An eugenic programme should include the sterilization of persons suffering from transmissible diseases of a serious nature, such as insanity or epilepsy.

8. For the blind, deafmute, infirm, feeble-minded, and other socially inadequate persons, we recommend that there should be more adequate and more appro-

priate institutional care and vocational training through hospitals, special schools, colonies and homes, in order that they may prove useful and be not an excessive burden to society.

9. When planned society comes fully into being, occasions for individual unorganised or sporadic charity will have no place. Misfortunes for which such charity is at present provided will be far rearer then, and such as occur will be guarded against by the collective obligation of the State. Even during the transition period, individual alms-giving must give place to organised relief and institutional care.

10. All social handicaps which come in the way of equality between man and man and man and woman, must be abolished. Untouchability and all such-like disabilities must be completely ended.

11. The maintenance of vital statistics, and the carrying out of periodic demographic surveys on comprehensive lines, are necessary; and appropriate machinery should be devised for this purpose.

Animal Husbanday and Dairying

I/5

The Final Report of the Animal Husbandry and Dairying was presented by Sir Chunilal V. Mehta, Chairman of the Sub-Committee, on the 4th May 1940. The Secretary, Rao Bahadur M. R. Ramswamy Sivan, was unable to be present. Discussion continued on the 8th May. The following resolutions were passed.

India has the largest proportion of animal production in the world, a considerable proportion of which is useless and burdensome. Means must, therefore, be found by sterilization and by other ways to reduce the size of the present cattle population, and also to guard against the increase of useless animals in the future. Though the number of animals is the largest in India, the produce per animal is miserably poor. Means must be found to increase this produce per animal, and to make the cow an economic proposition, and to cheapen the cost of cows' milk and milk products. With this end in view, while generally approving the Report of the Committee on Animal Husbandry, the following recommendations are made:—

1. The first essential is the breeding of Pedigree cattle suitable for regional areas with a view to distribute the bulls and cows on the premium system throughout the villages. The responsibility for doing this must rest with Government.

2. The objective of breeding should be what is known as the general utility or dual purpose animal, as India is an Agricultural country requiring bulls for cultivation, though the combination of milk and draught characteristics, including for agricultural operations, may mean some sacrifice in both to a certain extent. This policy is also necessary because animals cannot be bred for slaughter in view of the strong sentiment in the country in this matter.

3. Breeding should be done by selection from indigenous stocks as the experience of crossing with foreign breeds has not been happy.

4. Legislation on the lines of the Punjab and Bombay, but with its provisions considerably strengthened, should be undertaken for sterilising bulls and ringing cows which are found to be useless and superfluous, with a view to replacement ultimately by pedigree animals.

5. The system of dedication of Brahmani Bulls should be carefully watched so that only proper bulls, and ultimately pedigree bulls, are selected with the help of village panchayats and with the approval of the animal husbandry authority.

6. The question of Government Cattle Farms, Co-operative Organisation for Cattlebreeding and for Milk Production, Transport and Processing, and for the Distribution of Premium Bulls have been recently examined in the report of the Expert Cattle Committee, Bombay, 1939, whose recommendations may generally be taken as the basis of work, *mutatis mutandis*, in other provinces and states.

7. Proper provisions should be made for fodder, controlled grazing, silage, throwing open of forest areas, where feasible, and by legislative insistence, where practicable, on the cultivator setting apart a portion of his holding for fodder crops.

8. Good animals require good food, and the question of animal nutrition requires further research.

9. Cow's milk is an excellent article of diet for human consumption, and surpasses buffalo milk. When the arrangements mentioned above have been made and sufficient quantity of milk can be provided, there should be a drink-more-cow's milk campaign, especially in cities, where the taste has been developed for buffalo milk. The creation of a demand for cow's milk will be a great support to the dairying industry. Buffalo's milk is preferred because of its fat content. The objective of breeding should aim at increasing the butter content of cow's milk which can be done. This will also help the use of cow's milk for ghee manufacture for which there is a demand in the country.

10. Profitable production of pure milk and milk products is greatly handicapped by the unfair competition of unscrupulous vendors and distributors of adulterated articles. There should be adequate provision of law against this, and it should be strictly enforced. The competition of what is called vegetable ghee should be provided against. It is desirable to give a generic name to these hardened oils and the use of the word "ghee" should be prohibited for these products. Some distinctive colour should be given to these products at the factory, so that they cannot be mistaken for "ghee". The distinctive colour may be such as not to affect the colour of the cooked food.

11. Dairies should be removed from cities to rural areas at a suitable distance from them, both because the cost incidence in cities is high, and because it leads to the slaughter of our best animals as well as to the cruel and disastrous process of phooka. Transport facilities should be given.

12. Slaughter houses should be strictly controlled by Veterinary Officer who should see that no animals that are capable of being useful are destroyed. Regulations should be made to provide against the slaughter of animals serviceable for agriculture and for milking purposes. The objective should be to make the keeping of animals an economic proposition.

13. Pinjrapoles and Gorakshak Mandalies who derive their funds from trade should be persuaded to take up cattle breeding at least as a part of their activity.

14. In tracts where male buffaloes are used for cultivation and transport, attention should also be paid to the breeding of good buffalo stock.

15. Much more attention should be paid to animal husbandry as an important department of Government. The subject of Animal Husbandry should find a place in the curricula of the appropriate educational institutions. Research in all branches of Animal husbandry and Dairy Produce should also be encouraged.

16. Timely prevention of cattle disease, control of epidemics, and compulsory inoculation are recommended. More research is required on animal diseases.

17. The Committee are of opinion that there is scope in this country for manufacturing milk products like Casein, Skim Milk powder, Condensed Milk, etc., which are now imported; and this industry should be safe-guarded. In the manufacture of ghee it should be examined whether the preparation of it from creamery butter is not as good as, or better than, the deshi method from whole-milk curds.

18. The Sub-Committee's recommendations with regard to the breeding of sheep, goats and poultry, and also with regard to Bee-Keeping, are generally approved.

Labour

III/1

The Final Report of the Labour Sub-Committee was presented by the Chairman of the Sub-Committee, Mr. N. M. Joshi, on the 6th May 1940. Mr. V. V. Giri, a member of the Sub-Committee, was present. The Secretary of the Sub-Committee, Mr. V. R. Kalappa, was unable to be present. Discussion continued on the 7th and 8th May. The following resolutions were adopted.

1. Regulation as regards living and working conditions of the employees, including hours of work, employment of children, provisions for safety and sanitation, social insurance and such other matters, should apply, subject to such variation as may be necessary owing to the nature of the occupation, to industries and occupations to which so far no such regulation has been applied.

2. It is of paramount importance that certain essential human standards be maintained. In giving effect to any regulations for the improvement of living and working conditions, due regard will be paid to the interests of the consumer, and the capacity of each industry to support this obligation. In the event of an industry not being able to comply with these conditions, the State may protect, subsidise, or take it over, if it is the interest of the community to do so.

3. *Hours of work.*—Working hours should be limited to 48 hours per week, and nine hours per day. This should not lead to any reduction of earnings. It is recommended that a committee should investigate into all the questions arising out of the application of a 48 hour week on an all-India basis, including conditions of work.

4. This provision (relating to hours of work in resolution 3 above) shall apply to all employees in—

(*a*) factories and workshops, employing five or more persons and using mechanical power, or to factories and workshops employing ten or more persons even though not using mechanical power ;

(*b*) mines and quarries ;

(*c*) public transport services using mechanical power.

5. The principle of limiting the total weekly hours of work should be applied to other industrial and commercial occupations, including plantations, building works, public utility services, with due regard to the nature and varying conditions of the occupation.

6. *Child Labour.*—The minimum age of employment of children should be, progressively raised to 15, in correlation with the educational system.

7. *Health and Safety.*—In viwe of the specially technical nature of the problems of health and safety, a special committee should be appointed to make detailed investigations and recommendations for improving provisions for the health, safety and conditions governing night work, in all regulated undertakings.

8. *Wages.*—A wage fixing machinery should be established early in all provinces in order to secure for the workers a living wage, fix minimum wages consider other questions relating to wages, and obtain for them a descent standard of life, health and comfort.

There should also be a Central Board in order to co-ordinate the activities of the Provincial Boards.

9. *Housing.*—The question of Housing should be considered as a national obligation of the State ; and should, therefore, be more fully considered in connection with the housing sub-committee's recommendations. It is desirable therefore for the State, including the Local Body, to make provision for housing, as well as for co-operative schemes to be undertaken.

during the period of transition, and in order to improve housing conditions as rapidly as possible, employers should be required to erect suitable houses for workers, provided that full provision is made for freedom of movement and association, and against victimization by way of ejection during industrial disputes. Where necessary, facilities for transport should be provided.

10. *Holidays with pay.*—All industrial employees should be given at least 10 continuous working days (exclusive of public holidays) as paid holidays after 12 months service.

11. *Workmen's Compensations.*—The present rates paid by way of compensation should be examined and made adequate.

12. *Maternity Benefits.*—Maternity benefit legislation should be undertaken on the general lines laid down by the Geneva Convention of 1919, in regard to the period before and after childbirth, and payment being made out of a special public fund.

13. The Committee resolved that the right of woman workers to get equal pay for equal work must be recognised.

14. A system of compulsory and contributory social insurance for industrial workers should be established directly under the control of the State, to cover the risks of sickness and invalidity other than those covered by the Workmen's Compensation Act. Schemes for providing alternative employment to those involuntarily unemployed, Old Age Pensions and Survivors' Pensions, and also Social Insurance to cover risks of sickness and invalidity for all, should be established directly under the State. These schemes should be extended by stages, priority being given to particular classes of workers, with due regard to the relative urgency of their needs, facility of application, and to the ability of the community to provide for them.

15. *Literacy.*—A nation-wide campaign of adult literacy and education should be started by making it obligatory on every illiterate adult to attend a literacy centre for a fixed period. The necessary fianances required for launching the scheme should be provided by the State.

16. *Technical Education.*—Provision should be made for technical education of the workers by establishing Day and Night Schools for the purpose, so that the worker might become more efficient in his own industry, and might also learn an alternative occupation. After the State has made suitable provision, a certain period should be fixed after which only literates will be employed.

17. *Trade Unionism.*—Legislation should be passed to recognise Trade Unionism as an essential and integral part of the economic system.

18. *Trade Disputes.*—Machinery for the settlement of disputes should be provided by Government in the form of a Conciliation Board and an Industrial Court.

20. *The Labour Inspectorate* should be strengthened in the various provinces and should include women. Co-operation between Inspectorates of various provinces should be established by periodical conferences.

21. *Labour Legislation.*—It is desirable to have uniformity and co-ordination in labour legislation all over India. There should, therefore, be full co-ordination between the Centre and the Provinces, and the Provinces and States *inter se*, and appropriate machinery for this purpose should be devised, such as Tripartite Industrial Councils representing the Government, the employers and labour. This principle of uniformity and co-ordination should be borne in mind when prescribing the respective spheres of Central and Provincial legislation affecting labour.

22. Both in the interest of industry and the community, it is desirable to associate the workers progressively in the control system.

23. *Domestic Service.*—The case of those engaged in domestic services required special attention and legislation in regard to their hours of work, wages, holidays social insurance, and the like.

24. In order to remove the practical restriction on the freedom of movement and association of the workers on plantations, legislation should be undertaken with a view to providing public roads leading to the workers' places of work and residence and sufficiently large open spaces near their houses.

25. The right of repatriation of the workers on plantations should be made adequate.

26. *Seamen.*—An Employment Bureau under Government control should be set up in each major port, and recruitment of seamen should be made only through such a bureau. The work of the bureau should be carried on by persons possessing practical experience; but there should be a Joint Maritime Board to tender advice on all matters concerning the work of this Bureau. This Joint Maritime Board should include an equal number of representatives of ship-owner's and seamen.

27. There should be adequate accommodation, with light and air, and sufficient food of proper quality on board, and there should be no racial discrimination in regard to these.

28. *Dockworkers.*—Each major port should have a register of all workers who have a genuine claim to be regarded as dock labourers, and appropriate arrangements should be made for the proper rotation of work. This principle should be extended to other classes of casual labour, wherever possible. Labour exchange and other appropriate machinery should be devised for the recruitment of all classes of workers.

29. *Industrial Disputes.*—Under Planned Economy, legislation should be passed for adjudication of industrial disputes by impartial tribunals.*

Currency and Banking

IV/4

The Interim Report of the Currency and Banking Sub-Committee was presented by Mr. Manu Subedar, Chairman of the Sub-Committee on the 7th May. Prof. C. N. Vakil, Secretary of the Sub-Committee, was unable to be present. Discussion continued on the 9th and 10th May. The following resolutions were tentatively adopted :—

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1. The Reserve Bank of India is dominated by British financial interests and carries out policies dictated by them. The Bank must therefore be nationalised and be owned and managed by the State.

2. Banking business of every description must be carried on under a license and must be subject to such regulation, supervision and general control as the Central Banking authority imposes from time to time.

3. One of the essential conditions of the license to do banking business in this country should be that at least 95% of the personnel will be Indian. In the case of banks registered in India all the directors should be Indian nationals, the employment of any foreigner in any such bank will be left open as export adviser only and not as chief executive or manager.

4. Banks not registered in India should be prohibited from receiving any deposit or raising loans, in the same manner as in the United States of America.

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*The question of arbitration in industrial disputes had been previously discussed on May 7th. It was further discussed before this resolution was passed. Prof. R. K. Mukherji was opposed to any provision which might come in the way of strikes even under Planned Economy. Mr. N. M. Joshi stated that he would like to see the future State before he could commit himself to the principle underlying this resloution. Much depended on the nature of this State. He would therefore suspend judgment till then.

5. Banking facilities in the country must be widened and made easily available to the mass of the people, by means of an adequate number of branches of large Joint Stock Banks, small local banks, improvement and extension of Post Office Savings Banks, Co-operative Banking Societies, and private bankers, under a proper system of regulation.

6. All inland remittance charges should be eliminated. The Hundi system should be encouraged and strengthened, and Discount Houses should be established.

7. The Stock Exchange should be re-organised, and should work under very strict public control, so that they might function primarily as institutions to help investers.

8. All commodity markets, in which future or forward dealings take place, must be under regulations approved by the State.

9. All import and export trade must be done under a system of licenses, which should be freely given ; but which are so designed as to enable the State to have the fullest information regarding the direction of the trade, and to facilitate control and regulation as they are found necessary.

10. Increasing use should be made for foreign trade in staple articles, of recognised corporations, especially charged with functions of exporting and importing.

11. The entire foreign exchange business of the country should be conducted under the complete control of the Reserve Bank, and in such manner as it may determine from time to time. The Reserve Bank should make Foreign Exchange available to the other banks within limits of safety for the external value of the Indian currency.

12. Drastic steps should be taken to prevent drain of funds from the Indian money market in respect of insurance premia. The State should exercise greater control over all insurance funds with a view to ensure not only their safety but maximum utilisation for national purposes.

The Sub-Committee had recommended the extension of the State insurance scheme to the public with a view to eliminate private enterprise in this field. As this question had also arisen in the consideration of the Insurance Sub-Committee's Report, it was decided that a decision should be taken at a later stage.

13. The value of the Indian Currency Unit, whether at home or abroad, should be regulated exclusively by considerations of benefit to the Indian national economy, and not in the ruinous manner as at present, when the Rupee is linked to the Sterling. The link of the Rupee with the Pound should be broken as early as possible, all necessary steps and precautions having been previously taken.*

14. While in Planned Economy, fluctuation and depressions will be reduced to a minimum, it is desirable, that, meanwhile , these should be controlled, and sudden or prolonged fluctuations avoided, by the Central Monetary authority in the country. For this purpose several Index Numbers, based on different commodities and different considerations, should be kept to indicate the direction of these fluctuations as also the progress of the Plan. The Central Monetary authority should regulate the price levels and other conditions through the adjustment of the volume of currency and credit.

15. No reserves against the Indian Paper Currency, or the Indian Credit and Banking system, should be in sterling as hitherto. All such reserves should be normally in India, but the Reserve Bank should have discretion and powers of holding a portion at such places abroad (in gold only in quantities laid down by law) as is considered desirable and necessary. Reserve in gold should not be permitted normally to be kept out of India.

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*There was a note of Dissent to this Report by Prof. K. T. Shah, which was discussed for some time. Several members stated that while they were attracted by this new approach to money, it was not clear to them how it could be made feasible and practicable. It would be in the nature of an experiment. Mr. Ambalal Sarabhai suggested that Prof. K. T. Shah might write a fuller note on the subject, explaining his point of view and how it could be applied This note should be circulated to members of the N. P. C. Prof. Shah agreed to this.

16. The export of gold from India on private account must be prohibited forthwith, and the import of gold must be confined to the Reserve Bank only.

17. To improve the credit and financing facilities available to the primary producer, we recommend that warehousing facilities should be provided or organised by the State all over the country to enable the producer to place his produce in such warehouses. We recommend that the charges in connection with these warehouse should be eliminated and borne by general reserve, or, in any event, such charges should be as low as possible. Agianst the produce thus deposited, a receipt should be given to the producer who should be entitled to raise the money needed on the strength of this receipt.

18. The State will prevent profiteering and control price levels in the interest of the consuming public and of Planned Economy.

19. We recommend the establishment of Consumer's Associations at principal centres, with a view to protect the interests of the consumer in respect to quality price and weight of goods etc.

In order further to protect the buyer and check the habit of bargaining, we recommend that retail dealers should be made to fix their prices and exhibit them openly.

Insurance

(IV/5)

The Interim Report of the Sub-Committee on Insurance was presented by Sir Chunilal V. Mehta, Chairman of the Sub-Committee, on the 7th May, 1940. Mr. K. S. Ram Chandra Iyer, Secretary, Mr. B. K. Shah and Mr. J. C. Setalvad, Members of the Sub-Committee, were also present. Discussion continued on the 8th and 11th May. The following resolutions were tentatively adopted.:—

1. In order to organise the National Insurance system on a sound, all-round nation-wide basis, embracing every contingency having to be insured against, it would be necessary for the State to establish a Central, co-ordinating, national insurance board, which may be an autonomous board appointed by the Government and including representatives of the interests concerned.

Such a Board would not only provide for the management of such of the insurance business as is carried on by the State or any of its representatives directly, but also for the supervision, control, and regulation of those portions of the insurance business which are under private enterprise, and also for those to which the State become a contributory.

This Board will also collect the necessary data and statistics, as also to supervise the technical education of insurance workers.

2. Any scheme of National Insurance must provide for the entire insurance service being organised by indigenous enterprise.

3. Where direct or indirect advantages are enjoyed by non-Indian insurance enterprise as against corresponding Indian enterprise, they must be effectively dealt with.

4. Non-Indian business operating in India should, likewise, be required to reinsure their Indian as well as non-Indian business with the National Insurance Authority in India, on a basis of reciprocity.

5. With a view to make insurance co-extensive with all insurable contingencies as integral part of the Plan, the State should, by legislation or executive action, as the case may be, adopt every device to facilitate such extension and expansion.

6. In order to facilitate extension and expansion of the Mutual and Co-operative system, wherever considerable numbers of people, workers or otherwise, are to be found under more or less homogonous conditions, every facility should be provided to encourage them to organise as Mutual or Co-operative Societies for Insurance against their common contingencies of life.

7. Regarding para. 11 of the Report, we agree that social security should be assured to all classes of workers, but the particular method of assuring it should be decided in co-ordination with the recommendations already made in connection with the Report of the Labour Sub-Committee.

8. Insurance being a necessary service to the public, it is desirable that it should be made available at the cheapest cost possible. In order to bring this about, the cost of acquisition and renewal should be maintained at a reasonably low level, and the multiplicity of middlemen should be avoided.

9. (i) It was desirable to extend the benefits of life insurance to the largest number of people, and to do this as cheaply and efficiently as possible.

(ii) This should not be the monopoly of private enterprise, but private enterprise may continue.

(iii) The State should extend its life insurance scheme, at present confined to government officials, to the public generally, so that its benefits may extend to the mass of the people.

(iv) Thus for amounts within the upper limit fixed by the State for its own life insurance scheme, the State and private enterprise will function jointly; larger amounts will be dealt with at this stage by private enterprise only.

(v) Co-operative and mutual forms of life and other kinds of insurance, friendly societies and the like, should be encouraged by the State.

(vi) Other forms of insurance, besides life, may continue to be conducted by private enterprise.

(vii) The State should protect and encourage Indian private enterprise as against foreign enterprise in India.

(viii) The question of extending still further the activities of the State in the field of insurance will depend on future results and the experience gained.

Rural Marketing and Finance

1/1

The Final Report of the Rural Marketing and Finance Sub-Committee was presented by Dr. Sudhir Sen, Secretary of the Sub-Committee, on May 9, 1940. The Chairman of the Sub-Committee, the Hon'ble Mr. Ramdas Pantulu, was unable to be present.

Discussion continued on the 11th, 12th and 14th. The following resolutions were passed :— .

1. The practice of gambling in "future" markets is objectionable and injurious, and should be put an end to.

2. "Utilisation" industries, *e.g.* for canning fruits, producing fruit juices, tomato sauce, chutney etc., and "processing" industries, *e.g.* husking paddy, grinding wheat, curing tobacco, will directly widen the market for many agricultural products and frequently fetch higher net prices. Steps should be taken all over the country to explore the possibilities of developing such industries.

3. Adulteration of food has become a growing menace in this country. The consumer should be better educated to appreciate the purity of food-stuffs, and, if necessary, pay a slightly higher price. In addition, the existing Pure Food Laws should be re-examined and supplemented whenever necessary, and must be strictly enforced so as to stop the evils of food adulteration.

4. Rural Finance : The failure to draw a distinction between short-term and long-term finance has been a weak feature in the rural credit system. Suitable institutions for meeting these two types of credit requirements should be developed, and simultaneously steps should be taken to increase the credit worthiness of the cultivator.

5. The growth of co-operative land mortgage banks has been very slow except in Madras, their individual loans are relatively small, while the total volume of their transactions has never been large. The extension of these banks on proper lines can go a long way in meeting the demand of the cultivator for long-term accommodation. It is desirable, however, to supplement co-operative land mortgage banks, with State or State aided banks for dealing with long-term agricultural credit. The credit thus raised should be used for productive purposes.

6. Short-term loans are needed by the cultivator mainly for his seasonal operations and for the marketing and movement of his crops. He should, therefore, be in a position to borrow against the hypothecation of the crop to be raised and against the produce after it has been raised. In order to render crop hypothecation both cheap and easy, the necessary security must be provided by taking such steps, as making it an offence for a cultivator to remove or dispose of hypothecated crops, creating a form of chatted mortagage in respect of the crop in favour of the creditor whose claim will have priority over all others. The creditor in this connection means the State, a co-operative society, or some similar agency controlled by the State.

7. We recommend strongly the establishment of the system of public Warehouses for storing the produce of the cultivator on the lines suggested by this Sub-committee. The Warehouse receipt may be used as security for obtaining accommodation.

8. We recommend that regional investigations on the problem of Rural Marketing be made on scientific lines. It is also necessary to have more detailed and accurate statistical information than has hitherto been available. Steps should be taken to compile more comprehensive statistics on agriculture (production, consumption, trade, etc.), and the appropriate agency for this purpose should be devised.

9. In a planned society, Rural marketing should be organised on the co-operative principle, and eliminate unnecessary transportation of goods. The purchases of ural requirements should also be included in the above organisation.

10. For the transitional stage, we recommend that regulated markets should be extended widely and worked more efficiently in the interest of the cultivators. All dealers in agricultural produce should be licenced in order that their transactions may be controlled.

11. Standardisation and grading of agricultural produce should be introduced, and grading station under State control established, as quickly as possible. The introduction of standard contracts should be expedited so as to cover the staple products of India. The market news service should be further developed.

12. In view of the fact that the attitude of the Reserve Bank has so far been unhelpful in regard to agricultural credit, we are of the opinion that the powers conferred on the Bank by Sec. 17 of the Reserve Bank of India Act should be utilised immediately to make the financial facilities more easily available to the cultivators.

National Housing

VI/1

The Final Report of the Sub-Committee on National Housing, was presented by Mr. S. D. Prabhavalkar, Chairman of the Sub-Committee, on the 10th May 1940. Mr. S. B. Joshi, Jt. Secretary of the Sub-Committee was present, while the Secretary, Dewan Bahadur V. G. Shete was unable to attend. Discussion concluded on the same day. The following resolutions were passed.

1. We recommend the creation of statutory authorities namely (*i*) Central Housing and Planning Board; (*ii*) Provincial Housing and Planning Boards. The former will be concerned with general principles, policy, programme, finance, technique, standardisation and research on broad lines. The latter will guide and control all schemes, but not their details. Necessary legislation will be undertaken which will provide for the initiation and execution of the programme. Women's role in National Housing being important, we recommend that they be given adequate representation on these Boards.

2. Rural Housing should be undertaken in co-ordination with rural reconstruction, and should generally be based on ownership, and not tenancy, of the house and site, the latter on a basis of long lease if ownership is not possible. The programme of such rural housing should be carried out with due regard to the environment as well as the resources of the country, and with such aid from the State as may be necessary. The programme should include particularly the building of *Panchayat Ghars* in villages where community life and cultural activities of the villagers can be developed, including school, library, lecture hall, co-operative store and the like. Adequate equipment for games and sports should also be provided. The *Panchayat Ghar* should make due provision for the needs of women and children.

The State aid mentioned above should particularly include advice or assistance in matters of village sanitation and skilled labour.

3. Cattle should be accommodated in such a manner that the health of human beings does not suffer and proper sanitary arrangements are provided.

4. Urban housing is to be regarded as a public utility service, the responsibility for which primarily rests with the State. This should not, however, exclude private enterprise, suitably controlled by the State.

5. Definite standards for various types of unit house accommodation shall be laid down by the appropriate authority.

6. The State will make requisite arrangements for financing the Housing programme, if necessary, by loan.

Power and Fuel

II/2

The interim Report of the Power and Fuel Sub-Committee was presented by Dr. Megh Nath Saha, Chairman of the Sub-Committee, on the 12th May 1940. Prof. A. K. Shaha, Secretary of the Sub-Committee was also present. Discussion continued on the 13th May. The following resolutions were passed :—

1. We agree with the view that the rates for energy in India are unduly high and power has been very inadequately developed, and this has stood in the way of promotion of industries, particularly electro-chemical and electrothermal ones. This is due to the failure, on the part of the Indian Government, to adopt a National Policy on Power and Fuel, in spite of the suggestions put forward by the Industrial Commission of 1918, and in spite of the world-wide movement for rational and co-ordinated development of power resources in all countries of the world.

2. We recommend that in view of the fundamental importance of power developments, the huge capital investment required, and because it may involve the interests of more than one province or State and for other reasons, the State should develop a definite National Power and Fuel Policy on the following lines :—

(*a*) That all power and fuel resources of the country should be regraded as national property, and should be fully conserved, scientifically developed, and utilized, with a view to bringing power, particularly electrical power, at the service of everybody for domestic and industrial use, at the cheapest rate;

(*b*) As the generation and distribution of electricity is a public utility of great importance, the State should ultimately own it and the control and management of it should be exercised by the Electricity Boards, as hereinafter provided for;

(*c*) That the State should take the initiative to bring into existence all future schemes of regional power developments and public power supplies, particularly hydro-electric stations inasmuch as the working of such stations depend on the use of water resources which, however, have multifarious other uses affecting extensive areas, and large populations, *e.g.* for irrigation and navigation, for drainage and soil conservation; further because the State alone is in a position to reconcile and integrate all features of power schemes, financial success, cheap servicing, use over widespread areas; and land acquisition and settlement of populations;

(*d*) That in view of the limited reserves of coal, which cannot be replenished, and is indispensable for such essential industries as smelting of iron ore, production of synthetic dyes and other essential chemicals and because of the finding of the coal mining committee of 1937, that coal is being mined, processed, and marketed in a very wasteful way, greatly injurious to the interests of the nation as a whole, very strict State control should be exercised on all phases of the coal industry. Further in regions far removed from coal-fields, coal for power production should, as far as possible, be replaced by hydro-electric and other sources.

3. We are of opinion that in order to implement the National Policy on Power it is necessary to create Provincial Electricity Boards and one Central Electricity Board, and for implementing the National Policy on Fuel, there should be a Central Fuel Board. The Central Electricity Board will co-ordinate the activities of the Provincial Boards and formulate the general national policy. Wherever necessary, two or more Provinces or States may form a Regional Board.

The Central Electricity Board and the Central Fuel Board will work in co-ordination with each other.

The Provincial and Regional Boards shall be statutory bodies which shall be the sole vendors of electricity in bulk, and shall put up, where necessary, special power stations of their own, and shall set up grid systems for the purpose of supplying electricity wherever possible.

The functions of the Electricity Board will be as follows:—

(*i*) To carry out surveys of the water power resources of India.

(*ii*) To examine schemes for the generation and full utilisation of electrical power.

(*iii*) To take steps for the progressive reduction of rates, and for this purpose, wherever necessary, to reorganise existing distributing systems.

(*iv*) To standardise electrical equipment and practice.

4. *The Hydro-electric Survey of India*:

The Hydro-electric Survey of India should be an all India body with a suitable headquarters, and should be of the same status as the Trigonometrical and Geological Survey of India, and should work in co-operation with the National Water Power Resources Commission. Under its direction, survey work should be carried out by provincial agencies wherever possible or by its own staff, when provincial agencies are not available. The survey ought to be undertaken according to the natural hydrological divisions of India, *e.g.* the Ganges basin, the Indus basin, the Western Ghats, Deccan Plateau. It should be a permanent body like the Royal Water Power Board of Sweden or the Federal Hydrodynamical Survey of Canada. The survey should be carried out in a comprehensive manner, as laid down by the World Power Conference and all records and data should be analysed at the headquarters stations and use for development of power.

5. We favour a policy of electrification of railways.

6. The Indian Electricity Act should be amended to give effect to the policy enunciated in the above resolution.

7. *Coal*: We consider that in the interest of the nation it is imperative that coal mines and the coal mining industry, as well as the oil fields and other sources of natural fuel, should be completely nationalised. This industry should be conducted by a National Fuel Board, with sections for Productions ; Processing, Research and Utilisation ; and Distribution and Marketing and Transport. Research work should be started immediately.

8. *Liquid Fuels* :

(*i*) The State should establish a geophysical prospecting department, with modern equipment and a competent staff, and carry on an intensive search for petroleum sources in the country.

(*ii*) The development of the Power Alcohol Industry should be encouraged by the State, and all impediments in the way of this development must be removed, as this power alcohol is the most important liquid fuel which can be developed easily from various indigenous agricultual and forest products.

(*iii*) Intensive propaganda work should be started to replace kerosene by non-edible vegetable oils, and research should be carried on to devise suitable burners for this purpose.

(*iv*) A new orientation to the scheme of soft coke manufacture should be given by making it obligatory for all to recover the by-products for the purpose of further treatment in distillation plants.

Horticulture

1/7

The Final Report of the Sub-Committee on Horticulture was presented by Mr Jabir Ali, Secretary of the Sub-Committee, on the 14th May, 1940. Dr. G. S. Cheema, Chairman of the Sub-Committee, was unable to be present. Discussion concluded on the same day. The following resolutions were adopted :—

1. The National Planning Committee having considered the Report of the Sub-Committee on Horticulture, record their general agreement with the recommendations made therein. The Committee are of opinion that the present consumption of fruit and green vegetables in India is very low and infrequent, which affects the health of the people considerably. It is necessary, therefore, to increase this consumption, as part of the regular diet of the people, to such a degree as may be deemed adequate by nutrition experts. For this purpose the people should be educated and encouraged to consume more fruit and green vegetables. The following measures are calculated to achieve this object and are accordingly recommended :

(i) protecting the fruit grower in India by levying adequate duties on imported fruit ;

(ii) to set apart sufficient areas of land for the purpose of developing fruit cultivation ;

(iii) providing cold or other forms of storage (*e.g.* gas) in markets as well as during transport ;

(iv) adjusting internal transport rates so that they are in keeping with the ability of the fruit grower and the consumer ;

(v) extending the system of regulated markets to the trade in fruit ;

(vi) encouraging the cultivation of fruit and vegetables for personal use ;

(vii) encouraging after the local and Indian market has been fully supplied the export of surplus fruit or fruit which is the monopoly or speciality of India.

2. Horticulture should be treated as an integral subject in the curricula of agricultural colleges and the Universities, and facilities should be offered for specialised post-graduate study. A Central Horticultural Institute should be established in a suitable place to promote research. This research shall include the question of introducing suitable foreign plants in India and also the development of all seeds required for growing flowers and vegetables, and for medicinal plants, as well as in modern methods of storage.

3. Market gardening for vegetables and flowers should be extended and developed and the industry consisting of the making of essences, attars, oils, etc. should be encouraged to meet progressively the demand of the Indian market.

4. Other industries connected with horticulture *e.g.* agriculture, sericulture, etc., should also be established or encouraged.

List of the Sub-Committees whose reports were considered during the June sessions of the National Planning Committee

Name of the Sub-Committee	Nature of the Report	Dates when considered	
1. River Training and Irrigation	Final (Part II) .	21-22	June
2. Soil Conservation and Afforestation . .	Final . . .	22-23-24	June
3. Transport Services	Interim . .	23	June
4. Public Finance	Interim . .	24-25	June
5. Communication	Final . . .	25	June
6. Trade	Interim . .	26	June
7. Mining and Metallurgy	Interim . .	26-27	June
8. General Education	Interim . .	27-28	June
9. Land Policy, Agricultural Labour & Insurance	Interim . .	29-30	June

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N.B.—Notes added or reservations made in regard to any of the Resolutions by any individual member of the National Planning Committee represent his personal opinion, and not in a representative capacity. This would also apply to any expression of opinion in the course of discussions by any individual member.

RESOLUTIONS ADOPTED

River Training and Irrigation Sub-Committee

I/2

The Final report, Part II, of the River Training and Irrigation Sub-Committee, was presented on the 21st June by Nawab Ali Nawaz Jung Bahadur, Chairman of the Sub-Committee, Mr. U. N. Mahida, Secretary of the Sub-Committee, was also present. Discussion continued on the 22nd June, and the following resolutions were adopted :—

1. Considering the ever-present danger to the social security or life of the people, we feel that flood abatement and protection measures should receive the closest attention. Temporary expedient so far have proved to be of little avail. A very comprehensive policy is called for, and every possible method of the solution of the problem will have to be analysed, as regards its advantages and disadvantages and examined in respect to its feasibility, its dangers, and its cost.

2. The conclusion we have reached is that flood and famine are two aspects of one and the same problem viz., the full economic development of the water resources of the country for the service of man. The development of a flood-protection policy should, therefore, not be separated from that of the national policy governing water resources in general. We are confident that to harness the resources, so as to secure the greatest public benefits for all purposes to which water can be put, will be not only wise statemeanship but good economics.

3. We find that the policy of haphazard raising of flood banks in defiance of the rights of rivers to have sufficient space for their accommodation has failed to accomplish its design, and experience has shown that this policy has led to disastrous results. We recommend that requisite control be exercised over such harmful constructions in which due attention has not been paid to the laws of flow.

4. We suggest that there should be a proper planning of settlements, and that the utmost care be exercised in future to prevent commercial developments on land which is not fitted for human occupation.

5. We wish to draw attention to the prime importance of maintaining river systems in efficient working order,—a phase of the problem in which united action on the part of the people and of the State is indispensable. If rivers are to remain efficient flood carriers, such harmful acts as indiscriminate stripping of forests, unnecessary removal of vegetation, improper tilling, extensive grazing, unsuitable drainage, and unduly great abstractions of the low flows of rivers in their upper reaches, should be avoided. It should be realised that the consequences involved by such acts are vast. They lead to flood impetuosity on the one side, and on the other side, to deterioration and decay of rivers, by lowering of the water table and by flood-plain deposits growing coarser. It is necessary to restore woodlands, to afforest watershed areas, to adopt every other practicable means of detaining water and retarding flow, and to improve the drainage.

6. A matter that needs early attention is the excessive grazing by an animal population out of proportion to what the country can bear without deterioration; and in this connection we suggest that means be devised for reducing their number by having a more limited and better stock.

Note: A further recommendation of this sub-committee to the effect that "feeding grounds must also be restricted, and the growth of fodder crops and the practice of stall feeding encouraged" should be considered along with the Reports of the Animal Husbandry and Soil Conservation Sub-Committees.

7. With the increase in the human and the animal populations, another problem, viz., that of soil erosion, has assumed enormous proportions, and we suggest the provision of wind-brakes, construction of field embankments and contour trenching as protection against onslaughts from erosion. The appalling waste of valuable top-soil is one of the biggest problems confronting the country.

Note: This subject must be further considered with the report of the Soil Conservation Sub-Committee.

8. We have already suggested "the systematic undertaking of research and investigation to determine the extent and availability of the ground-water supplies and the relation between their use and depletion". We desire to lay emphasis on this, as the lowering of the water table in certain areas is leading to a gradual increase in the dryness of the ground.

9. To concentrate on flood problems we consider that a Flood Branch be attached to the Irrigation Department and a Soil Conservation Service be started in the Department of Agriculture.

Note: Their administrative arrangements will, however, have to be co-ordinated with those recommended by the Soil Conservation Sub-Committee.

10. We regard storage of waters, on an extensive scale, as the back-bone of successful flood operations, and we are confident that this will be found to be generally practicable, and that on many rivers it can be achieved at a reasonable cost.

11. To enable River Training Works to be carried out effectively, we suggest :—

(a) that accurate contour surveys be made of the areas liable to floods.

(b) that hydrological data be amplified and kept up-to-date ;

(c) that flood recorders be installed at key points whereby the variation of the surface slope could be recorded automatically ;

(d) that an intensive study be made of each basin and each problem in that basin ;

(e) that a record be maintained of the improvement or the deterioration of the rivers and their branches ;

(f) that early steps be taken towards the clearing up of the water rights between the States interested.

12. We recommend that :

(a) a Department of Hydrographic Survey be established ;

(b) the Meteorological Department should have a section on Hydrology attached to it, and the service of flood forecasting and warning should be taken up as a matter of paramount importance.

13. The problem of River Training involves many highly complex engineering questions, and, in many phases of it, advance will best be made by research. We therefore recommend the establishment of one or two fully equipped Hydro-Technic Research Institutes, as well as a number of local laboratories dealing with local problems.

14. In the undertaking of river training works, harmonious action between those interested in the waters is essential, so that there may be no misdirection or dissipation of effort. As problems of governmental relations arise in negotiating agreements for the execution of the works, in apportioning costs, etc., river training must be regarded as a federal subject and not left to individual states. The Federal Government should also participate in the appropriations needed for flood protection. These are as essential to the general welfare as appropriations for famine, relief, and they are, therefore, just as necessary for the State to undertake.

15. To deal with the problems in each major river basin, more especially those subject to frequent floods, we consider it necessary to have a Statutory Authority on the lines of the Tennessee Valley Authority in the U. S. A.

Note : This would especially apply to the Ganges and Indus, and possibly to the Mahanadi, rivers.

Soil Conservation and Afforestation Sub-Committee

I/3

The final report of the Sub-Committee on Soil Conservation and Afforestation was, in the unavoidable absence of the Chairman of the Sub-Committee, Prof. J. N., Mukherjee, presented by Prof. S. P. Agharkar, Secretary of the Sub-Committee on the 22nd June. Discussion continued on the 23rd and 24th June, and the following resolutions were passed.

1. Soils and Forests constitute a national heritage. On their successful conservation depend the present and the future of the nation. The State must, therefo step in and accept responsibility for their conservation.

2. The problems of conservation of soils and forests must be treated as a whole. For this purpose, the system of land utilisation as it obtains at present requires the closest investigation. A land utilisation survey should be conducted by a body of experts, and land utilisation maps prepared on the basis of the information gathered. The position should be reviewed every ten years with a view to watch and regulate where necessary the trend of changes in land utilisation.

3. Official statistics show that out of about 827 millions acres of the land area, 173 million acres are " cultivable waste, other than fallow ", 61 millions as " current fallow ", and 183 millions as " not available for cultivation ". One of the most important of the problems which should be tackled by the surveys proposed above and the Land Development Board (mentioned below) is to determine :

(*a*) the area actually available for utilisation , under the head " cultivable waste other than fallow " and " current fallow " ;

(*b*) the conditions under which it could be utilised ; and

(*c*) the causes why so large a proportion is classified as " cultivable waste other than fallow ".

4. The information regarding land utilisation, for example, that given in " The Agricultural Statistics of India ", though useful for some purposes, is not of much help for Planning. The collection of necessary and adequate statistical data should, therefore, be the first item in the programme of Soil Conservation.

5. For the purposes of coordination and working out of programmes of conservation, a statutory organisation, to be called the Land Development Board, should be established both at the centre, in the provinces and States. The provincial and State organisations should look after the local aspects and the organisation at the centre should take up matters of interest to more than one province. This will serve the purpose of co-ordinating all efforts for conservation of soils and forests and enable the problems to be visualised and grappled as a whole.

6. The Central Land Development Board should deal with :

(*a*) Soil Conservation including soil surveys, soil maps, soil fertility and land reclamation ;

(*b*) Anti-erosion measures ;

(*c*) Afforestation, reafforestation and improvement of existing forests ; and

(*d*) Land utilisation and coordination.

Other connected subjects, such as, irrigation and drainage, crop production, grass lands and pastures, industrial utilisation of agricultural and forest produce and marketing of produce from the land, should be dealt with in consultation and co-operation with corresponding organisations.

Among the functions of this Board will be :

(*i*) Preparation of soil maps of India after necessary surveys ;

(*ii*) Correlation of results of manurial and varietal trials in selected areas with types of soils, agricultural practice, and land reclamation ;

(*iii*) A complete erosion survey.

7. The whole area in a Province or a State should be divided into physiographic units, each having a coordinated programme of soil conservation suited for its special needs. The programme to be followed should be based on thorough investigation and research in typical localities.

8. There should be a Central Institute for the study of soil problems, and especially those of erosion.

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9. There should be provision for a fully equipped research station in each of the different soil areas for soil and silvi-cultural research and developmental utilisation.

10. Adequate facilities should be provided for training in forestry and agriculture in the universities and technical institutes, especially with a view to making the results available to the public.

11. One of the most striking features of the present utilisation of the total avails able area is the small proportion devoted to village or minor forests, grasses, legumes, and other soil-conserving crops, pastures, fruit and other trees, to meet the needs of the rural communities for food, fodder, fuel, timber, etc. A policy of well-distributed afforestation, especially with reference to village or minor forests, should be pursued by the State, in particular with regard to those lands which have been thrown out of cultivation or which are at present regarded as culturable waste and can be reclaimed.

12. *Soil Erosion* :—

(*i*) Shifting cultivation must be controlled or eliminated, as also breaking of virgin forest land. Contour ridging, terracing and levelling of fields and other measures required for the control of erosion should be encouraged by means of remission of land revenue, education and propaganda.

(*ii*) Cooperative activities should be enlarged to include land reclamation village afforestation and forest management.

(*iii*) Afforestation work should be extended in the plains with a view to provide—(*a*) shelter belts, (*b*) fodder trees, (*c*) hedgerow timber, and (*d*) fuel supply.

13. *Reclamation* : Vast stretches of saline and alkaline soils, sand deposits arid and semi-arid soils, swamps and other types of water logged soils, ravines and soils afflicted by defects not covered by the above, are known to exist in the country. It is necessary in the first place to provisionally classify these soils according to their more obvious characteristics and to obtain a broad idea of their extent of occurrence. This should form part of the survey programme. Projects of reclamation should be based on careful research in which all scientific aspects should be taken into consideration.

14. *Soil Moisture* : Improvements in agriculture and soil should be made through the regulation of water supply, conservation of soil moisture, and drainage, and all necessary information for this should be gathered through the surveys contemplated. The extent and causes of water logging and remedial measures should be studied in detail.

15. *Soil Fertility* : Agriculture should be so planned as to maintain soil fertility at its optimum level. The suggestions made by the Sub-Committee in this behalf deserve consideration more particularly those dealing with the conservation of organic matter and the cheapening of fertilisers.

16. *Forests* : Forests must be preserved as a national heritage, and Forestry should be judged by the long-term financial results rather than the immediate surplus.

17. The following measures are especially recommended for protecting and improving the forest wealth of the country :—

(*i*) In Provinces or States where there is no special " working plans branch " such a branch should be established, as such working plans are the essence of forest management.

(*ii*) Contour of grazing, control of fire, contour trenching, and gully plugging.

The general position in privately-owned forests is unsatisfactory. Such forests should, therefore, be acquired by the State or strictly controlled by the State in the public interest.

18. Forests should be developed and worked with a view to produce the materials for the following, among other, industries :

(1) Timber, particularly teak.
(2) Paper, including newsprint, packing and wrapping papers, 'kraft' papers, strawboards.
(3) Insulation boards and similar other materials.
(4) Rayon.
(5) Plywood and veneers.
(6) Matches and pencils.
(7) Machine and tool parts made of wood.
(8) Lac for gramophone records, electrical insulation, plastics.
(9) Resins and varnishes.
(10) Essential oils.
(11) Tanning materials.
(12) Medicinal plants.
(13) Wood and charcoal to produce gas for internal combustion engines.
(14) Dyes.

19. Forest cottage industries should be encouraged and the possibilities for these should be investigated (*e.g.* rope-making, baskets, wicker-work, toys, etc.).

20. *Capacity of forest to furnish employment* : The census returns of 1931 show that directly or indirectly the forests offer employment to about 2,000,000 people in British India alone. With more efficient utilisation of forest resources, it should be possible to find employment for a much larger number.

21. *Wild Life Sanctuaries* : This Committee considers that the organised large scale hunts, with the help of hundreds of beaters, are not only inhuman, but are leading to the extinction of valuable wild life in the jungles and should be disallowed. For the protection and preservation of wild life in the jungles, national parks and sanctuaries should be established in various parts of the country.

22. *Communications* : Out of the total area of 125,000 sq. miles of State forests, 54,000 sq. miles, that is 43%, are either inaccessible or profitless. It is urgently necessary to provide suitable means of communications, rail and rope-ways, roads, waterways, and paths, as otherwise fuller development of our forest resources will not be possible. Freight rates on forest produce are generally too high and should be reduced.

23. *Fires* : Effective measures should be taken to minimise damage from forest fires, and for this purpose a Fire Protection Section of the Forest Department is recommended.

Transport Services Sub-Committee

V/1

The Interim Report of the Transport Services Sub-Committee was, in the unavoidable absence of Dr. D. R. Gadgil, Chairman of the Sub-Committee, presented by Dr. F. P. Antia, Secretary of the Sub-Committee on the 23rd June. Discussion concluded the same day, and the following resolutions were passed :—

1. The transport facilities of various kinds available in this country compare unfavourably with the corresponding facilities in modern industrialised communities, with due regard to their area, population, and productive efficiency.

2. Considering each of these forms of transport service in India, though in general the railways may be said to meet the present traffic demands upon them, there is room for internal economies in the working of the railways, and better adjustment of the available traffic suitable for Planned Economy.

3. Under Planned Economy both these requirements of the railway service will have to be examined before any programme of railway expansion can be considered The Planning Authority will have to distribute the available traffic, so that the fullest utilisation is made of the existing track, rolling stock, terminal facilities, and ancillary services of the railways.

4. Assuming that Planned Economy results in an increase of the total volume of goods and passengers having to be moved by railway, it will be a part of the functions of the executive authority charged with carrying out the plan, to determine how this extra traffic in goods and passengers should be apportioned as between the railways and other means of transport.

5. As regards the roads, the present mileage of all motorable roads, metalled and unmetalled, compares unfavourably with the corresponding facilities in modern industrialised countries. In view of the relative economy of road transport for comparatively small scale production, and short hauls,—both characteristics of Indian economy today,—the Planning Authority will have to examine the possibility of developing the road service as an alternative or supplementary, to the railway carriage.

6. Roads, to be useful for efficient transport service as an integral part of the planned programme, will have to be considered, not only as national highways, but provincial as well as local means of transport and communication. One of the most considerable handicaps of the existing economy in India is the lack of cheap and adequate transport service in rural areas, which, it is considered, is likely to be provided by a better development and use of the roads as between the villages as also those connecting the villages with markets. The National Planning Authority must, accordingly, devise means to provide this form of transport in every region considered to be the unit for this purpose, in the planned programme.

7. Another handicap for an adequate development of road as well as railway services is the absence of the necessary manufacturing industries for the production of locomotives, automobiles, wagons and coaches, their parts and accessories, within the country. The Planning Authority must attend to the establishment as soon as possible of the necessary industries in this regard.

8. Apportionment of the traffic between roads, railways, waterways, inland and coastal, and airways will have to be determined by the National Planning Authority with due regard to the interests of the producers and the consumers, in each case, as also to the cost of carriage involved. This means that each of these forms of transport has its appropriate field of service, which, though not exclusive may yet be regarded as its proper sphere within which it may render the best service and produce the utmost economy.

9. Facilities for inland waterways in the shape of perennial rivers and navigation canals based upon them, though abundant in some parts of the country, have not been utilised as fully as they might have been, mainly because of the competition of the railways. This competition went on unchecked ever since the Railways came into being because of the financial stake of the State in the commercial success of the Railways. It is necessary that these facilities for inland water-ways should be fully developed.

10. The volume of traffic, both in goods and passengers, carried by coastal ships in Indian coastal waters, is very considerable, both in value and in quantity. But the Indian share in carrying this traffic is comparatively insignificant, and of very recent date, owing to the handicaps placed by the foreign vested interests in this sphere. All coastal traffic must be reserved for national shipping.

11. India has a very considerable volume of foreign seaborne trade, passenger traffic and mails. An Indian National Mercantile Marine is, therefore, urgently needed and should be developed. A modern ship-building industry, along with its auxiliary industries, should be established as early as possible. India should be self-sufficient in regard to all her shipping requirements and should not depend on foreign shipping services.

The National Planning Committee was of opinion that the Transport Services Sub-Committee should consider, for the purposes of their final report.

(*i*) The question of the transport services from the point of view not merely of economic return but also of aiding in the task of national development and social well being of the community.

(*ii*) The organisation for the central control and co-ordination of the transport services.

(*iii*) Animal transport, especially for purposes of rural communications, and the development of cheap village roads.

(*iv*) The use of trolley buses where electric power is available.

Public Finance Sub-Committee

IV/3

The Interim Report of the Public Finance Sub-Committee was presented by the Chairman of the Sub-Committee, Shri K. T. Shah on the 24th June. There was a minute of dissent by Mr. A. D. Shroff, which was read out by the Chairman, National Planning Committee. Discussion continued on the 25th June.

The Chairman of the Public Finance Sub-Committee informed the N. P. C. that the Report was agreed to by five members of the sub-committee, namely Dr. D. R. Gadgil, Prof. C. N. Vakil, Prof. Gyan Chand, Dr. J. P. Niyogi and himself, who were all present at the meetings of the Sub-Committee at Allahabad. Messrs. Qureshi, Thomas and Venkatarangaiya had not been present, and they had not, so far, expressed their approval or disapproval.

He then explained the main features of the Report. In answer to questions, he stated that it was not possible for his Sub-Committee to give estimates of income and expenditure under this plan, as this would depend on the norms laid down by the N. P. C. and the general policy of the State. If these norms were laid down, then an attempt could be made to give these estimates. Shri K. T. Shah was requested to prepare a note, on his own behalf, giving these estimates on the basis of the decisions of the National Planning Committee so far taken.

The following resolutions were then adopted :

सत्यमेव जयते

I. *Expenditure :*

1. In the present system of Public Expenditure there is considerable room for retrenchment by means of :

a. Reconsideration of the governing policy regarding nature and object strength and equipment of certain services like Defence or charges in connection with public debt :

b. Reduction in the scales of rates of pay pensions and allowances to Public Servants, in all departments, in the higher ranks. In conformity with the basic principle of the Plan, and in fairness to the large army of the lower paid public servants, a minimum living wage will also have to be fixed in all departments and ranks of the Public Service ;

c. Revision of the basis for fixing the strength and requirements of Public Service and in improving its efficiency in each department, and for leave rules, particularly in the higher services.

2. All savings effected by revision, reduction or retrenchment are likely to be only a fraction of the expenditure needed for :

a. Extending and widening the scope, direction, and volume of existing Public Services, including National Defence ;

b. Increase in the number, variety, and intensity of public activities *e. g.* Education ;

c. Improvement of the basic minimum pay and conditions of service of the lower subordinate staffs.

3. For extending, widening, or increasing the scope, volume, or number of public services or activities, definite forms will have to be laid down by the Planning Authorities, and finance would have to be provided in accordance with the same, with due regard to economy and efficiency.

4. In public utility services, though commercial principles may not be applicable in all cases, a through-going check and control by way of efficient audit is indispensable in regard to all items of expenditure and output of work and value received.

5. Capital investment in utilities, services, or agricultural, industrial or commercial enterprise, must be kept apart from those of recurrent expenditure.

6. Against capital investment made out of borrowed funds, adequate provision must be made from the start for a complete liquidation of the obligation incurred, including interest, and the replacement or renewal, without incurring fresh obligations on that account, of the plant, machinery, stock, or buildings requiring such investment, within a definite period. Adequate provision should also be made, by way of depreciation, for replacement or renewal of the plant, machinery or buildings, required for such undertakings.

7. No interference should be allowed with the provision made under the preceding head, and no transfer or borrowing permitted from this account to meet currrent losses or deficit in the ordinary budget.

8. Exception may, however, be made under specific rules to allow brrowings from these Reserve, Replacement sinking funds, for capital investment in the extension or expansion of the same utility, service, or enterprise, or for similar purposes in cognate utility, enterprise, or service, provided that full provsion is made for the repayment and liquidation in full of such loans within a definite predetermined period.

9. When Provincial Governments delegate to the Local Authorities under them functions and assign sources of revenue, they shall do so under proper financial and administrative control.

II. *Revenue* :

10. The aggregate volume of Public Expenditure—national, provincial, and local—collectively as well as severally,—would have to be very considerably increased in order to meet all the requirements of the Plan. Revenues, would have, therefore, to be increased proportionately.

11. For the effective execution of a comprehensive Plan, it would be necessary to increase the contribution from the several forms of Public Enterprise, including a thorough exploitation of the Public domain in lands, mines, forests, and the like, so as increasingly to supplement the revenues derived from taxation direct or indirect.

12. The production and supply of all utilities and services, which are of a national as well as a monopolistic character, should be carried on by the public authorities ; and the net surplus, if any, derived therefrom be appropriated as current revenue. The interest of consumers of each service or utility should be duly taken into account, particularly by the monopolistic undertakings.

Note :—Mr. Ambalal Sarabhai desired it to be noted that while he agreed with the first part of this resolution, he was not agreeable to the surplus being appropriated as current revenue. This should not be the objective in view.

13. In regard to public utilities and services the ideal of service to the larger number at the lowest cost, should be kept in view. Nevertheless, because of the economies possible under large-scale production and efficient management in all round co-ordination, a net surplus or profit will probably accrue, and this should go to the public revenues.

Note :—Mr. Ambalal Sarabhai, though he was in favour of nationalisation doubts if it would be more economical or more efficient.

The sub-committee had recommended that industries concerned with the provision of the main plant, machinery fittings and basic raw materials for the production and supply of nationalised utilities and services should be conducted as collective national enterprises. Further that all key industries ('mother' as well as 'vital' industries) should be progressively nationalised and administered by a statutory corporation created for the purpose. Private enterprises, so acquired, should be paid just and proper compensation.

The N. P. C. had so far decided that key industries should be owned or controlled by the State, the control being strict in the case of key industries. The possibility of such industries not being owned by the State but controlled by it has thus not been ruled out. This question had been left for future consideration when more data were placed before the Committee for any further decision that it might take.

It was pointed out, on behalf of the Public Finance Sub-Committee,that apart from other considerations, questions of finance and the necessity for increasing revenue for the nation-building activities of the State made it essential for these key industries to be owned by the State, and, therefore, the alternative of their being merely controlled should be ruled out.

The N. P. C. was of opinion that as this raised a question of fundamental principle, and the argument of revenue had not been previously placed before it, the whole question should be considered by it at a later stage when basic questions of policy were considered.

The Public Finance Sub-Committee had further recommended that in allocating items of public expenditure, as far as possible all items of nation-building, service-rendering, and wealth-producing character should be entrusted to the Provincial Governments and sources of revenue, adequate for these purposes, assigned to them. Incomes from direct taxation on income, excess profits, and inheritance taxes, it was recommended, should also be assigned to the Provincial Governments.

The National Planning Committee referred back this last recommendation to the Sub-Committee for reconsideration and fuller examination.

14. For the full consummation of the complete Plan, direct taxes on Incomes or Excess Profits, or on property like Estate Duties, Death Duties, Land Increment Values, should be developed by increase in rates on a steeply graduated scale: In levying taxation, the principle of redistribution of the burden of taxation in accordance with the taxable capacity should be given effect to.

Note :—It was proposed to add the principle of differentiation between earned and unearned incomes also. Pending a clearer definition of unearned incomes this addition was postponed.

15. In a comprehensive Plan, Land Revenue should be charged according to the principle governing Income-Tax, with proper safeguards for exempting a basic minimum, and providing a graduated scale of taxation. It must be a wholly provincial source of revenue.

16. Taxes on house property, or urban land, on trades and professions, and the revenue from municipal and local licence duty, should ordinarily be assigned to local authorities.

17. All customs duties should be assigned to the Central Government exclusively. The question of excise duties requires further consideration, and was referred back to the sub-committee. If excise duties are to be levied, this should be done only by the Central Government.

Note :—Mr. Ambalal Sarabhai wanted it to be noted that, in his opinion, Excise Duties on essentials of life are undesirable.

Salt duty : As the Sub-Committee had made no recommendation about, or reference to, the Salt Duty, the National Planning Committee decided to ask them to consider this question from the economic as well as other aspects, and to report.

18. Adequate provision should be made for relief from double taxation within the country itself, as between units and units, and a unit and the centre.

19. *Credit*: Adequate credit facilities must be placed at the disposal of every governing authority—local or provincial—to facilitate their undertaking productive enterprise left in their charge with proper regulations for the safeguard of public credit. In the case of local bodies an adequate control must be exercised by the Provincial Government. A National Investment Board must be established, through which alone, public borrowing for such purposes as may be indicated in the Plan may be undertaken. This Board must work in close co-operation with the Central Banking Authority.

Note: Mr. Ambalal Sarabhai, Mr. Advani, and Prof. R. K. Mukerjee were of opinion that the Central Banking Authority should itself do this work directly.

20. *Accounts*: Independent Audit for the accounts of all governmental bodies and statutory corporations should be provided, in addition to local and internal audit.

Communication Services Sub-Committee

(V/2)

The Report of the Communication Services Sub-Committee was presented by Sir Rahimtullah Chinoy, Chairman of the Sub-Committee on the 25th June. Dr. S. K. Mitra, Secretary of the Sub-Committee gave a brief account of the Report. Discussion concluded the same day.

The following resolutions were adopted:

1. *Policy*: Communications and broadcasting are public utility service affecting the well-being of the community and are at present under State Control They should be public monopolies, and should be run on commercial lines, and developed intensively, subject to the paramount consideration that they are social services, and as such powerful agents in the task of national development.

2. *Telegraphs*: In view of the fact that the Telegraph is the cheapest means of quick communication and is indispensable for the rural population and also because development of industries and internal trade is bound to be followed by a demand for increased facilities for telegraphs, we propose that, to make the service more accessible, the number of Telegraph Offices be increased from the existing 3 per 1,00,000 persons to 5 per 1,00,000 in course of next ten years.

3. *Telephones*:

(*a*) In view of the expected developments of electrical power schemes, growth of industries, and expansion of trade and commerce, steps be taken to increase the number of telephones from 1 per 4,000 to 1 per 1,500 person.

(*b*) All future installations of local telephone exchanges should generally be of the automatic type in preference to the manual type.

4. *Radio Communications*:

(*a*) Considering that radio direction finding and associated services specially in connection with aviation have been a source of profit in recent years and that the demand for this is bound to increase owing to the anticipated development in aviation and shipping services, an increase of Radio Stations from 34 to 50 should take place in the course of the next ten years.

(*b*) The existing departmental commercial radio telegraph channels though in demand by the public are not equipped to deal with large traffic, and in the near future provision will have to be made for new radio telegraph channels, for instance, between India and Malay States, India and the near East, India and African countries. The total number of commercial radio telegraph channels should be increased to at least three times the present number.

(c) It will be necessary to open a few short-wave and ultra short wave radio telephone links, the former for connecting up Indian subscribers with those in nearby countries, and the latter for working in association with the trunk system of the country across large river crossings, marshy regions, etc.

5. (i) A section for survey and development of Electrical Communication Service should be established, whose function would be to carry out a detailed survey of the needs of electrical communication of the various areas concerned and also to carry on publicity and propaganda work for creating demand.

(ii) The work of this section in the different administrative divisions shall be co-ordinated by a Central Organisation at the headquarter of the Post and Telegraph Department.

6. *Postal Service* :

(a) It is anticipated that as a result of National Planning there will be substantial increase of literacy and industrial and commercial enterprises and that there will be increased demand for postal facilities. It is, therefore, proposed that the number of Post Offices and Letter Boxes be increased approximately to double their present number, the increase being proportionately more in rural areas.

(b) In view of the fact that the Post Office can be an effective agency for spreading information about health, agriculture, and current events, and thus contribute to rural uplift, the administrative machinery should be so strengthened as to enable the Post Office to come into closer contact with the public and meet an ever widening circle of their needs.

7. *Radio Broadcasting* :

(a) A fuller and more intensive use of broadcasting should be made for dissemination of news and useful information, education generally and more particularly adult education, publicity for social reform and progressive measures, and entertainment.

(b) In order to make the Broadcasting Service more effective, it is necessary that the number of transmitters be considerably increased and steps be taken to increase largely the number of receivers. The Sub-Committee recommends that, for this purpose, the number of medium-wave transmitters be increased to 31 consisting of 10 of 20 KW and 21 of 5 KW aerial power.

(c) The number of centres for relaying programmes should be increased from 8 to 20.

(d) In view of the low average earnings of the people, steps should be taken to bring down the price of receivers to within the reach of much larger numbers. A drive should be made to increase the number of sets from 3 per 10,000 to at least 3 per 1,000 in the course of the next ten years.

(e) Communication receivers should be installed in villages for the benefit of the rural population.

(f) The suggestion that the Central Broadcasting Organisation should introduce a system of providing receiver sets on hire is worthy of consideration.

(g) There should be a statutory corporation for radio broadcasting, and an advisory council, consisting of representatives of the public and experts, should be attached to it. In this connection the scheme of organisation given in the Report is deserving of consideration.

8. *Research*: A central research organisation for the Electrical Communication Service and Radio Broadcasitng Service should be established under the Department of Communications of the Central Government.

9. *Manufacture*: We consider that it is absolutely necessary that the materials and components needed for the electrical communication service should be manufactured in India. For this purpose investigations should be undertaken by Government to find out how far the materials available in India are suitable. The existing workshops at Alipore and Calcutta should be utilised fully for this production, and such additional steps should be taken as may be considered necessary.

10. *Training Facilities*: In order to provide the requisite training facilities for Indian students as well as Government employees selected for the purpose, steps should be taken to ensure that overseas as well as Indian firms, with whom Government orders for stores are placed, shall afford all such facilities in their factories, workshops and laboratories. This may be secured by a specific clause in such contracts. Arrangements should also be made to provide suitable employment for such trained personnel after they have finished their training.

11. The N. P. C. agrees with the Sub-Committee that the financial policy in regard to these services should be a liberal one and not based exclusively on a calculation of profit and loss. The social aspect of these services must always be borne in mind. In this connection the financial recommendations of the Sub-Committee are deserving of consideration.

[It was pointed out that, in the terms of reference of the Communication Services Sub-Committee, Tourist Traffic, etc., had also been included, but the Sub-Committee had felt that this did not fall within their province. The N. P. C. agreed to this. It was felt however that the subject was an important one and should be dealt with separately. Mr. Ambalal Sarabhai was asked to draft a resolution on it.]

Trade Sub-Committee

IV/1

The trade Sub-Committee's Report had been put down on the agenda for the meeting of the National Planning Committee on the 26th June. But it was stated that the Report dealing with Internal Trade, though ready, had not so far been duplicated and circulated among the members. Certain draft resolutions dealing with Internal Trade were, however, ready. It was decided, however, that the whole subject, which was of great importance, should be considered fully at a later stage, when the full Report was complete and had been circulated.

At the request of the National Planning Committee however, Shri Kasturbhai, Lalbhai, Chairman of the Sub-Committee, gave a brief account of the Report. He pointed out how internal trade was of far greater importance than external trade.

The National Planning Committee desired to emphasise the directions previously issued in the Note for the Guidance of Sub-Committees (paragraphs 9 and 19 Handbook No. 1, p. 79 and 81). Paragraph 19 should apply not only to industrial development but to other development also. The following resolutions were also passed:

1. *i.* Owing to the size of the country and the population, the geographical distribution of various crops and minerals, the internal trade of or country is even today far larger than our foreign trade and will be more so in future.

   ii. Owing to this fact, it will play a more vital part in our economic life and must be planned and fostered to contribute to our national well being.

2. *i.* An essential step in such a direction is the realisation of the fact that our provinces are economically inter-dependent, and can advance only together and not against each other.

ii. In framing any measures of local economic development, the broader background of the necessity of a corresponding well being in other parts of the country should always be kept in mind.

3. An immediate attempt should be made to collect and collate the statistics relating to the internal trade.

Mining and Metallurgy Sub-Committee

(II/4)

The Report of the Mining and Metallurgy Sub-Committee was presented by Dr. V. S. Dubey, Secretary of the Sub-Committee, on the 26th June in the unavoidable absence of its chairman, Prof. D. N. Wadia. Discussion continued on the 29th June.

The following resolutions were passed :

1. The mineral wealth of the country belongs to the community collectively The exploitation of minerals and development of mining and mineral industries should be reserved exclusively to be carried on as public enterprise.

2. The mineral wealth is of vital importance to the nation. Most of the material imported at present, like metals, machinery, etc., is manufactured out of mineral raw materials. But sufficient attention has not been paid so far to the development of this mineral wealth.

Non-Metals :

3. (*a*) The country is well endowed in regard to the majority of non-metallic minerals, but most of the industries requiring these raw materials have not been developed. Most of the articles made from these minerals, and which are imported at present from abroad, can be manufactured in India.

3. (*b*) The only important raw materials imported at present are salt and sulphur. Salt can be easily prepared in any amount in the country. Every effort should be made to find out if there are sulphur deposits in India. Attempts should also be made to manufacture sulphur or sulphuric acid directly out of gypsum, pyrites or other raw materials available in India.

3. (*c*) Scrap mica, which is being wasted at present, can be utilised in various ways, and attempts should be made to do so.

4. Raw materials for nitrogen fertilisers, as well as to some extent for other types of fertilisers, are available in India. The synthetic fertiliser industry should therefore be started as recommended in resolution 3 (Red Book II, page 41) dealing with Chemical Industries.

Metals :

5. India has large deposits of iron ore, manganese, chrome bauxite and other metals. Except in the case of iron and steel, these resources have not been developed. These industries are essential for the general industrialisation of the country, as well as for defence.

6. Other metals, except copper and gold to some extent, are not being produced in India. Both copper and gold are being exploited by non-Indian concerns. An organised search for deposits of all such metals, which are so far lacking in India should be made.

7. Restriction should be imposed on the export of ores of national importance such as manganese, mica, ilmenite, etc. A definite policy should be laid down in respect of minerals of which India has a virtual monopoly, or of which she has a supply in excess of her requirements.

Fuels :

In regard to fuels the National Planning Committee has already passed resolutions when considering the report of the Power and Fuel Sub-Committee [Red Book II, p. 65, 67 No. 2 (d) and 8].

Survey and Supervision :

8. The Central Geological Survey Department should carry out a thorough and complete survey of the mineral resources of India in all parts of the country, and should for this purpose, be extended and adequately strengthened with expert staff.

9. The exploitation of minerals should be under the supervision of a Central Council for mining and mineral industry.

Waste :

10. The question of waste in the methods of mining and recovery of materials is very important in India. A detailed study of waste in various kinds of mining should be made by an expert committee and steps taken for its avoidance. Wherever possible this waste should be stopped immediately.

11. In view of the fundamental principle of the National Planning Committee's policy that all mineral wealth in this country belongs to the community collectively, and is to be exploited and developed as public enterprise, the problem of taxing mining and metallurgical industries would not arise when the Plan we envisage comes into effect. Pending however, the necessary readjustments as between that policy being given effect to and the present position of concessionaires, taxation may have to be imposed on the concession, the production, the marketing and the profits of such industry.

Rules :

12. The existing rules and regulations regarding mining and prospecting are highly unsatisfactory, and should be revised, especially in regard to inspection of mining plant and working practices, so as to ensure the safety of workers, adequacy of plant, and efficiency of production. Indian nationals should be trained in sufficient numbers for all types of work,,so as to be able to replace the foreign personnel now employed, within a short time.

Freight : The National Planning Committee has already passed a resolution (*vide* Red Book II, p. 45, No. 21) regarding freight charges on railways, which would apply to freight on such heavy raw materials as minerals. In order, however, to give a comprehensive consideration to the question of transport charges in general, the entire problem be referred to the Transport Sub-Committee for closer examination and report on the principles which should govern it.

Tariff : The suggestions that the Sub-Committee have made in regard to tariff on minerals should be considered when the general tariff policy is considered.

Minerals used for Defence : Under clause (c) of this Sub-Committee's terms of reference, a classification was desired of mineral resources essential for national defence and those that were non-essential. The Sub-Committee is requested to deal with this reference in their final report.

General Education Sub-Committee

(VII/1)

The Interim Report of the General Education Sub-Committee was presented by Shri E. W. Aryanayakam, Secretary of the Sub-Committee, on the 27th June, in the unavoidable absence of its Chairman, Prof. Sir S. Radhakrishnan. Shri Aryanayakam gave a brief account of the Report, and of the Basic Scheme of Education. It was pointed out that the sections dealing with Intermediate and University education had not so far been dealt with. Discussion continued on the 28th June.

There was considerable discussion about the nursery stage of education and the desirability of making provision for it from the earliest age, as also about compulsion being introduced even for the pre-Basic stage. Shri Aryanayakam made it clear that his Committee would welcome the extension of nursery schools, provided that they were entirely optional He was opposed to any compulsion before seven. The real difficulty was the lack of resources in finance and qualified teachers. Special provision might be made for the small children and women working in factories.

The following resolutions were passed :

Pre-Basic Education :

1. The Committee is of opinion that the State should make suitable provision for the training of the children of the community from the earliest stage. It realises, however, that such provision on an adequate scale is exceedingly difficult in the near future owing to lack of trained teachers and paucity of funds and other resources. Nevertheless the Committee desires to lay stress on the importance of the pre-basic stage of education, and makes the recommendations given below to be given effect to progressively during the first ten years. The Committee would welcome an application of this pre-Basic stage for children of under five years ofage wherever and whenever circumstances permit.

2. Pre-Basic education should be optional Compulsion should be introduced at the initial age of basic education.

3. Pre-Basic education should cover a period of two years prior to the period of basic education.

4. The fundamental principles guiding the scheme of pre-Basic education should be that every child between the age of five and seven should, wherever necessary and whenever adequate arrangements cannot be made at home, have full facilities for a free and all-round development, both physical and mental, in pre-basic schools.

Note : The age limit of five may be reduced to three wherever considered desirable.

5. The progrmme of pre-basic education should consist of :

(*a*) Meals : Every pre-basic school should make adequate provision for nourishment of school children, during school hours.

(*b*) Medical care : The ideal of pre-basic education should be that every child in a pre-basic school should be under the care of a qualified doctor. Teachers may be given elementary medical training. During the transitional period, they may look after the health .of the children and treat ordinary ailments with simple remedies.

(*c*) Cleanliness : Habits of cleanliness,—both personal cleanliness and cleanliness of surroundings, should be inculcated.

(*d*) The formation of good habits of living and of team work.

(*e*) Free Play.

(*f*) Facilities for self-expression : Through speech, music, dancing. dramas, hand-work, and art etc.

(*g*) Elementary social training ;

(*h*) Stories, poems and dramas.

(*i*) Nature study and care of pet animals.

(j) Sensory-motor training: Care should, however, be taken not to introduce expensive apparatus for sensory training. As far as possible, this training should be given through objects of nature or simple locally available apparatus.

Note : One of the members desired the deletion of 'dancing' from clause (*f*) above, as the introduction of this subject contemplated a different social and cultural background, to which he could not subscribe.

Ways and Means of Introducing Pre-Basic Education :

6. The Committee being of opinion that the necessity for pre-Basic schools is most acute in industrial areas, and next in urban areas, recommends that :

i. The managing bodies of industrial establishments, mines and plantations, should be made to provide adequate facilities for the education of the children of pre-basic age of their employees by running pre-Basic schools or giving contributions to local bodies or private agencies for running such schools. Such schools should be under the control of the Education Department.

Note : In regard to clause i. above, Mr. Ambalal Sarabhai was of opinion that the responsibility and obligation for such pre-Basic schools should rest on the local bodies, except in the case of isolated industrial areas.

ii. In urban areas not provided for in No. i., pre-Basic schools should be run or aided by local bodies.

iii. Encouragement should be given to the spread of pre-basic education in rural areas through local bodies and voluntary effort.

The Provincial Governments should undertake the responsibility of training teachers of pre-Basic education, and should run a few model pre-Basic schools.

7. Training of Pre- Basic teachers : The teachers of pre-Basic schools should preferably be women. It is desirable that teachers of pre-Basic schools should attain a standard equivalent to the high school leaving certificate and be specially trained. Until such teachers are available in large numbers, intelligent women with understanding of children should be selected even if their academic standard is less and should be given special training to equip them as pre-Basic teachers. The minimum salary of a trained pre-basic teacher should be Rs. 20 per mensem in the rural areas with an additional allowance in urban areas.

Note : The standard referred to above need not necessarily involve a knowledge of English.

Supervision :

8. As pre-Basic schools will need a specially trained and sympathetic supervising staff, it is recommended that supervisors of pre-Basic education be trained along with the teachers in the training centres of Basic Schools.

Basic Education :

9. Basic education shall be free, compulsory and universal for every child between the ages of seven and fourteen.

10. *Age Range of Basic Education*: The age range of basic education should be seven to fourteen. In areas where pre-Basic schools do not exist, Basic Schools may be utilised, wherever possible, for pre-Basic education from six to seven, but there should be no compulsion for this. In no case would it be desirable to lower the age limit below fourteen.

Note : Shri Aryanayakam emphasised that it was of the essence of the Basic Scheme that the basic stage should last till the age of fourteen.

11. *Specialisation* : At what stage should the children be allowed to change from basic schools to intermediate schools for specialised studies ?

After completing five years of the basic course, children should be allowed option to change from basic schools to intermediate schools. Poverty should not prevent children from entering these intermediate schools. Machinery should be set up by the State to select children from the basic schools at the age of either twelve or fourteen and give them scholarships to enable them to continue their studies in these higher schools.

Note : While the Committee accepted these age limits, it felt that a certain elasticity might be allowed.

12. *Languages* : The mother tongue of the child shall be the medium of instruction in the basic schools. Hindustani should be taught in grades V, VI and VII as a compulsory second language.

Prof. M. N. Saha proposed that the Latin script should be adopted in India in place of other scripts. There was some discussion. Prof. R. K. Mukerjee and Dr. Mehta supported this proposal; but the other members felt that it was not feasible, at any rate under present circumstances.

13. The knowledge of a foreign language is very necessary for scientific, commercial, cultural and political purposes, and in order to maintain contacts with the thought and developments of the modern world. We think, therefore, that the study of a foreign language is very desirable and should be encouraged, wherever feasible, as an optional subject during the later stages of the Basic curriculum. Classical languages may also be optional subjects wherever feasible. Where English is taught, we recommend that Basic English should be used.

14. *Crafts*: From the point of view of educational development, it is essential that a child's education throughout the first five years of the basic course should centre round a basic craft.

> Professors M. N. Saha and R. K. Mukerjee were of opinion that, instead of laying down that the basic course should centre round a basic **craft** it should be said that "the basic course should include manual work, use of tools and machines, drawing, gardening, agricultural work, clay-modelling, carpentry etc."

Shri A. K. Shaha preferred "some basic crafts" instead of "a basic craft."

15. The syllabus prepared by the Zakir Husain Committee should be generally accepted as the tentative syllabus for basic education.

16. *Education of girls*—Basic education should be common for boys and girls and should be carried on in common institutions. Wherever local opinion so desires, provision should be made for women teachers. We are of opinion that women teachers are generally to be preferred in basic education.

The Committee realise that owing to existing social conditions and habits it may be difficult to introduce co-education everywhere throughout the basic stage. In giving effect to this recommendation, therefore, public opinion has to be borne in mind, and it may be necessary, to begin with, especially in some urban areas, to provide separate schools for girls in the later stages of basic education, wherever this is feasible.

But the ideal of co-education throughout the basic stage must be kept in view and worked up to.

> (One of the members would prefer separate schools for girls after the age of ten. He accepts, however, the above resolution, but wishes to emphasize that the part dealing with public opinion and local sentiment should be leniently interpreted by the educational authority.)

17. *Religious Instruction*: State education should take no responsibility for religious instruction. Religious instruction is the concern of the individual, the home, the family and the religious group concerned.

> (*Note*: Shri Ambalal Sarabhai, Prof. M. N. Saha, Shri A. K. Shaha and Shri K. T. Shah were of opinion that religious instruction should be the concern of the individual alone.)

18. *Examinations*: There shall be no external examinations in basic education. An administrative check should, however, be maintained on the working of the basic schools.

At the end of the fifth year of basic education there should be a selection of students for transfer to the different courses.

School leaving certificates shall be issued by the heads of the basic schools to students on the completion of the seven years of the basic course. Admission to the intermediate institutions should be decided by the tests of the institutions concerned.

It is desirable that uniform all India standards should be maintained, and that these should be recognised throughout the country.

19. *Supervision* : An efficient and sympathetic supervising staff is essential for the successful working of basic education. Provision should be made for the training or re-training of an adequate supervisory staff to guide and supervise the working of the new experiment in basic schools.

20. *Training of Teachers* : The general education of pupil teachers for admission in basic training schools should be up to the high school leaving certificate or its equivalent. They will undergo special training for teaching in basic schools. There should be ample provision for periodic refresher courses for the teaching and supervisory staff.

To prepare the necessary number of teachers of basic education it will be necessary to reorganise the existing normal schools and establish new training schools in large numbers, the ideal being one training centre for each district and some training colleges for training the teachers of the training schools.

The basic training schools should be of two types—one group training the teachers for the first four grades of the basic course—another group of a higher standard for training teachers of the last three grades of the basic course.

21. *The Location and Transport of the Children of Basic Schools* : Basic schools should be mainly of two types—central schools and feeder schools. Central schools or full seven-grade basic schools, should be established wherever there is a village or a group of villages with a population of 2,000 or more, having a minimum of 200 school-going children. Local bodies shall make the necessary arrangements wherever necessary. There shall be a Statutory Board for Basic Education constituted by the Provincial Government to formulate and control policy and supervise these schools.

A feeder school or a basic school of four grades shall be provided wherever there is a minimum of forty school going children within a radius of one mile. Children attending basic schools will not be obliged to walk more than two miles to and back from school.

Finance : The question of financing Basic Education is referred to the Public Finance Sub-Committee.

22. *Adult Education* : The National Planning Committee agrees that the need for adult education is imperative and urgent, and all possible steps should be taken to provide it. The programme outlined in the note submitted by the Sub-Committee is approved in general.

23. *Employment of Teachers* : The note on the Employment of Teachers was read out. The Committee was in general agreement with this note.

Shri Ambalal Sarabhai pointed out, however, in regard to the proposed Charter to Teachers that, though he agreed with its several items, he was averse to such guarantees on a big scale being given by the State in the form of a formal Charter.

24. *Private Schools* : Private schools for imparting Basic Education may be permitted provided they are free schools, conform to the State policy of education, and are under the control of the State Department of Education. Such schools should aim at carrying out educational experiments, and should avoid exclusiveness and the promotion of a special class consciousness among their students.

25. *Compulsory Labour Service* : The National Planning Committee is of opinion that a system of Compulsory Social or Labour Service should be established, so as to make every young man and woman contribute one year of his or her life, between the ages of 18 and 22, to national disciplined service in such form and place, and under such conditions, as the State may prescribe in that behalf. Such service should be carried on in a disciplined way and in healthful conditions, on works of national utility, including agriculture, industry, public utility service

public works of all kinds and other nation-building activities. **Habits of team work** mutual and co-operative labour, co-ordinate activity, and physical endurance should be developed. Physical culture should be an essential part of this year's training.

While young men and young women should be treated on terms of perfect equality, specialised service may be provided for women wherever this is considered necessary. No exemption should be allowed from this service, except on certified grounds of physical or mental disability. Under no circumstances should the privilege of buying oneself out of this universal obligation be permitted.

This scheme of Labour or Social Service should be fitted into the educational system either at the end of the intermediate stage or the University stage.

This scheme should be progressively introduced.

26. *Norms of Physical Fitness*: In order to increase the physical fitness of of the community, it is necessary to lay down definite norms of physical fitness for boys and girls at every stage of education. These norms should include weight, height, chest measurement, running a prescribed distance within a prescribed period, jumping a certain height, lifting a certain weight and ability to swim.

27. *National Day*: A day should be fixed as a universal holiday in which all classes and communities, teachers, parents and pupils, should join in common celebration of some event of national significance.

Land Policy, &c. Sub-Committee

(I/4)

The Interim Report of the Sub-Committee on Land Policy etc., was presented by the Chairman, Shri K. T. Shah, on the 29th June. Dr. Radhakamal Mukerjee, Secretary of the Sub-Committee was also present. Discussion continued on the 30th June.

It was decided that this report need not be considered in detail at this stage as the matter was being referred back to the Sub-Committee for fuller consideration and report. Meanwhile, certain guiding principles on Land Policy should be laid down by the N. P. C. in order to enable the sub-committee to base their report on these principles.

सत्यमेव जयते

The following resolutions were passed :

1. Agricultural land, mines, quarries, rivers and forests are forms of natural wealth, ownership of which must vest absolutely in the people of India collectively.

2. The co-operative principle should be applied to the exploitation of land by developing collective and co-operative farms in order that agriculture may be conducted more scientifically and efficiently, waste avoided, and production increased, and at the same time the habit of mutual co-operation for the benefit of the community developed in place of the individual profit motive.

Collective or co-operative farms should be developed to begin with on 'culturable waste' land which should be acquired, where necessary, by the State immediately. Each such unit should be linked to other like units.

NOTE.—Mr. Ambalal Sarabhai approved of this being done as an experiment.

Prof. R. K. Mukerjee considers that peasant farming in small heritable holdings should not be ruled out, but continued along with both co-operative farming with individual ownership and collective farming with joint ownership and joint distribution of agricultural produce.

One of the members agrees with Mr. Ambalal Sarabhai in this matter and further adds that while individual enterprise should be subordinated to the needs of the community, it should not be eliminated. In this connection he would like to await the results of the experiment.

3. No intermediaries of the type of taluqdars, zamindars, etc. should be recognised in any of these forms of natural wealth after the transition period is over. The rights and title possessed by these classes should be progressively bought out by granting such compensation as may be considered necessary and desirable.

The practice of sub-infeudation and sub-letting of land should not be permitted.

4. The Sub-Committee is requested to consider and report on the forms of collective and co-operative farms, which may be suitable for India and which they recommend. Such collective and co-operative farming must be under State supervision and regulation.

NOTE.—(*i*) The land co-operatives mentioned above should not be construed in a restricted sense as applying to specific functions, such as, marketing credit or collective purchase of seeds, etc., but include cultivation and all aspects of agriculture.

(*ii*) During the initial years of the Plan, it is likely that considerable areas may remain outside the collective and co-operative organisations mentioned above. The Sub-Committee should make recommendations in regard to such areas during this transition period.

List of Sub-Committees whose Reports have been considered by the Planning Committee

1. Soil Conservation and Afforestation—Final.
2. Animal Husbandry and Dairying—Final.
3. Horticulture—Final.
4. Power and Fuel—Interim.
5. Mining and Metallurgy—Interim.
6. Engineering Industries including Transport Industries—Final.
7. Labour—Final.
8. Population—Final.
9. Insurance—Interim.
10. Communication Services—Final.
11. National Housing—Final.
12. River Training and Irrigation—Final, Parts I and II.
13. Rural Marketing and Finance—Final.
14. Land Policy, Agricultural Labour and Insurance—Interim.
15. Chemicals—Interim.
16. Manufacturing Industries—Interim.
17. Trade—Interim.
18. Public Finance—Interim.
19. Currency and Banking—Interim.
20. Transport Services—Interim.
21. General Education—Interim.

सत्यमेव जयते

The Reports of the Sub-Committees Nos. 1—11 were fully considered by the National Planning Committee. Some of these reports, though interim, have covered all their Terms of Reference, and require further elaboration. Some questions of general principles affecting various Sub-Committees have been, however, deferred for further consideration.

The Reports of the Sub-Committees Nos. 12—21 have been only partially considered. Some of the Sub-Committees have not reported on all the Terms of

Reference and are expected to report on the questions which they have still to consider. There are also some instances in which the Planning Committee have referred back certain specific subjects to the Sub-Committee concerned, for further consideration.

The following Sub-Committees have either reported, but their Reports have not yet been considered by the Planning Committee, or have not yet reported at all. They are expected to submit their Reports by the 1st of August at the very latest.

1. Crop Planning and Production ; (*Vide pp. 80—82, Hand Book No. 2*).
2. Fisheries ; (*Vide pp. 80—88, Hand Book No. 2*).
3. Rural and Cottage Industries ; (*Vide pp. 80—82, Hand Book No. 2*).
4. Industries connected with Scientific Instruments ; (*Vide pp. 82—80, Hand Book No. 2*).
5. Industrial Finance ; (*Interim Report submitted*).
6. Public Health ; (*Vide p. 83, Hand Book No. 2*).
7. Technical Education ; (*Vide p. 83, Hand Book No. 2*).
8. Woman's Role in Planned Economy. (*Interim Report Submitted and draft of final Report passed at Sub-Committee meeting in July 1940*)

सत्यमेव जयते

List of Sub-Committees whose reports were considered during the Fifth Sessions of the National Planning Committee

Name of the Sub-Committee	Nature of the Report	Dates when considered
1. Public Health	Interim	30—31st August.
2. Woman's role in Planned Economy	Final	31st August, 1st 2nd and 4th Sept.
3. **Land** Policy, Agricultural Labour and Insurance.	Supplementary note	3rd Spetember.
4. **Rural** and Cottage Industries	Draft Resolutions	3—4th September.

N.B.—Notes added or reservations made in regard to any of the Resolutions by any individual member of the National Planning Committee represent his personal opinion, and are not in a representative capacity. This also applies to any expression of opinion in the course of discussions by any individual member.

सत्यमेव जयते

RESOLUTIONS ADOPTED

Public Health Sub-Committee

VI/2

The Interim Report of the Sub-Committee on Public Health was presented by the Chairman, Col. S. S. Sokhey, on the 30th August. Dr. J. S. Nerurker, Secretary of the Sub-Committee, was also present. Discussion continued on the 31st August, and the following Resolutions were adopted :—

1. For the purpose of raising the standards of public health in the country, and for the prevention of disease, it is essential that dietary standards should be substantially raised and made adequate and better balanced. In this connection, the N. P. C. notes the specific recommendations of the Sub-Committee, and resolves that they be placed before the National Planning Commission.

(NOTE.—The specific recommendations are that the dietary standards laid down by the Technical Commission of the Health Committee of the League of Nations, with a permissible reduction of 8%, be accepted for India. These provide a basic diet of 2,400 calories for an average adult with suitable additions proportioned to the nature and strain of the work).

2. India should adopt a form of health organisation, in which both curative and preventive functions are suitably integrated, and administered through one agency.

3. Such an integrated system of health organisation can be worked only under State control. It is, therefore, recommended that the preservation and maintenance of the health of the people should be the responsibility of the State.

4. For the proper functioning of such an organisation medical and health research in the widest possible field is essential. This research should, therefore, form an important function of a Health organisation ; and this should include the application of the scientific method for the investigation of the indigenous and other methods for the maintenance of health, and the prevention and cure of diseases.

5. In view of the paucity of qualified medical men and women in the country, it is necessary to increase rapidly and substantially their number. For this purpose it is necessary to organise a large number of training centres.

6. In addition to the above, and as an immediate step in order to meet the special conditions prevailing in India, we recommend the training of large numbers of Health Workers. These Health Workers should be given elementary training in practical, community, and personal hygiene, first aid, and simple medical treatment, stress being laid on the social aspects and implications of medical and public health work. There should be one Health Worker for every one thousand of the population, and this number should be attained within five years. Selected Health Workers should be given further training at suitable intervals so that they might be better trained for this service.

7. There should be ultimately one qualified medical man or woman for every 1,000 of population, and one bed for every 600 of population. Within the next ten years the objective aimed at should be one medical man or woman for every 3,000 of population, and a bed for every 1,500 of population. This should include adequate provision for maternity cases.

8. The medical and health organisation should be so devised and worked as to emphasize the social implications of this service. With this object in view the organisation should be made a free public service, manned by whole-time workers trained in scientific method. To give effect to this aim, a Chair should be established in every medical school for special training in the social or service aspect of medicine and public health.

9. Adequate steps be taken to make India self-sufficient as regards the production and supply of drugs, biological products, scientific and surgical apparatus, instruments and equipment, and other medical supplies.

10. A Pharmacopœia Committee should be appointed to draw up an Indian pharmacopoeia. In order to carry out this object adequately, research should be particularly intensified to determine the action of drugs traditionally used in India.

11. No secret remedies, or remedies whose exact composition is not stated on the labels of the containers in the clearest possible terms, should be allowed to be sold.

Proprietary remedies whose composition is clearly indicated, may, however, be allowed to be sold under proper State supervision.

12. No individual or firm, Indian or foreign, should be allowed to hold patent rights for the preparation of any substances useful in human or veterinary medicine.

The State should encourage and endow research and suitably recognise and reward those who achieve successful results.

(NOTE.—Mr. Ambalal Sarabhai is of opinion that such patents should be treated on the same basis as copyright in books or industrial patents).

13. An attempt should be made to absorb the practitioners of the Ayurveda and Unani systems of medicine into the State health organisation by giving them further scientific training where necessary. Medical training in every field should be based on scientific method.

(NOTE.—Mr. Nanda was of opinion that other systems, such as homoeopathy and naturopathy, should also be included in this by the addition of the words "and other systems." It was pointed out, however, that no exclusion was intended in the resolution but stress was laid on the necessity of the scientific method and training).

Sub-Committee on Woman's Role in Planned Economy

VIII

The Final Report of the Sub-Committee on Woman's Role in Planned Economy was presented on the 31st August by Srimati Mridula Sarabhai, Secretary of the Sub-Committee, in the unavoidable absence of the Chairwoman, Rani Lakshmibai Rajwade. Several members of the Sub-Committee were present during the discussion, which continued on the 1st, 2nd and 4th September.

The following resolutions were adopted :

1. On the basis of the Karachi Congress, 1931, declaration of Fundamental Rights of Citizenship in India, it is resolved :—

- (*a*) In a planned society, woman's place shall be equal to that of man. Equal status, equal opportunities, and equal responsibilities shall be the guiding principles to regulate the status of woman whatever the basis of society in the Plan ;
- (*b*) Woman shall not be excluded from any sphere of work merely on the ground of her sex ;
- (*c*) Marriage shall not be a condition precedent to the enjoyment of full and equal civic status and social and economic rights by woman ;
- (*d*) The State shall consider the individual as the basic social unit and plan accordingly.

2. Woman shall have the right to vote, to represent, and to hold public office on the same terms as man. There shall be joint electorates, based on adult franchise for both men and women, for election to political bodies, including self-governing institutions.

3. An organised health service, with special maternity arrangements for women, shall form an integral part of planned economy. Indigenous Dais shall be gradually replaced by trained midwives as soon as possible.

4. The health programme of the State shall aim at the eradication of serious diseases, more especially such as are communicable or transmissible by marriage. The State should follow a eugenic programme to make the race physically and mentally healthy. This would discourage marriages of unfit persons, and provide for the sterilization of persons suffering from transmissible diseases of a serious nature, such as insanity or epilepsy.

5. A Planned scheme of national economy should provide for a scheme of social insurance, made availble in cash and kind, for all citizens. This should include benefits in the case of disability, sickness, accident, pregnancy and childbirth in the case of women, and assistance for the care and nursing of the new-born child. This scheme should be given effect to progressively.

6. During the transition period due provision should be made in the leave rules applying to women workers to get leave on the ground of the sickness of the child. The burden of this may be borne by the community.

7. Creches and nursery centres should be provided for as laid down in resolutions 12 and 14 passed on the Labour Sub-Committee's Report. Meanwhile the present system of requiring the employer to provide for maternity benefits and creches should be continued and extended to include plantations and mines. In view of the fact that this provision had led to the exclusion of women workers from such employment, the cost should in future be assessed on the total number of employees, irrespective of sex. All benefits shall be disbursed by the State or local authorities.

This rule should also apply to local self-governing institutions as well as other large employers.

8. Those Provinces and States which have no Maternity Benefit Act should adopt a scheme of social insurance in preference to a Maternity Benefit Act. In the event of a Maternity Benefit Act being introduced, this should be on the lines indicated in resolution 7 above.

9. All women should be assured adequate leisure, irrespective of work in or outside the home. This leisure will follow from :

(*a*) The organisation of Pre-Basic education institutions, such as nursery schools, kindergarten centres as well as creches and

(*b*) The improvement of social amenities and co-operative and community undertakings.

It is also necessary that there should be some kind of regularity in home life There should be a cessation of all work during the day at a fixed hour, so that the midday meal can be conveniently taken and the housewife released from the dutie of the kitchen.

10. An identical standard of morality, which harmonises social welfare with individual freedom, whould be accepted for both man and woman, and should guide legislation and social convention.

11. Persons born in any part of India of parents who are Indian National, shall, in regard to nationality, be considered Indian citizens. Persons born of alien parent or alien parents shall have the right to choose their nationality within six months of their reaching the age of majority. Married women shall have the same right in the event of their marrying non-nationals of India.

12. Every child born in the community has a claim on it in regard to education, occupation, earning and property, as well as civic and social rights. There should be no restrictions made either by law or custom between children born in or out of wedlock. Children of alien parents shall also be entitled to education, health and freedom from abuse.

(NOTE.—Mr. A. D. Shroff does not agree that there should be no difference made either by law or custom between children born in or out of wedlock.

Mr. Shuaib Qureshi desired to record his dissent as follows :

"Such claim should be confined to :

(*i*) the parents of the child ;

(*ii*) in case of a child born out of lawful wedlock, to maintenance, parental care, and education, but would not affect the law of inheritance.)."

13. A Charter of Children's Rights shall be framed on the lines of the U.S.A. (legislation) and its provisions shall include :

(*a*) Reservations against any commitments made by guardian or parent on behalf of a minor child in respect of marriage, dedication to religion, slavery, or beggary. These commitments shall be deemed to be voidable in law at the option of the individual concerned on reaching the age of majority. In the event of any such commitment being given effect to, the special officer appointed for this purpose should be entitled and empowered to act on behalf of the child to avoid the commitment.

(*b*) The employment of children for wages under the age of 15 should be prohibited. During the transitional period, the minimum age for such employment should be progressively raised to 15, particularly in industries and in occupations where hours and conditions of work are harmful to the children. Exceptions may be made for agricultural work. Night work between 6 p.m. and 6 a.m. shall be prohibited to boys and girls under 18.

When the national system of education, including Basic Education compulsorily up to 14, comes fully into operation, the minimum age for such employment will be automatically raised ; and correlation shall be provided between work and training, even after the age of 14.

A special organisation should be established to look after and protect the rights of children, particularly orphan children.

14. The principle of equal wage for equal work shall be granted practical recognition in such a manner that it does not create un-employment or bar employment to women.

15. Women shall not, as a matter of policy, be excluded from any industry or occupation. In the event of any legislation or development causing the exclusion of women from any occupation, and thus leading to their unemployment, steps should be taken by the State to provide for their being absorbed in other occupations.

16. For purposes of recruitment and co-ordination of labour supply in different occupations, a system of labour exchanges should be established.

17. Trade Unions should consist of both men and women workers. There should be no separate trade union for women. Statistics of trade union membership should include information about women and young persons on their registers.

18. Woman's work in the home, as well as her work on the family land, though not easy to recognise in terms of money value, is an essential contribution to the social wealth of the State (community) ; and shall be fully recognised as such. The aggregate of social wealth under Planned Economy will include all kinds of work, whether recognised in money value or not.

19. A uniform Civil Code shall be enacted applicable to all citizens of India. This should be based on the fundamental principle of equality as between man and man and man and woman. During the transition period, it should apply to those who choose to accept it. Those who are unable to subscribe to this Code, may continue to be governed by their personal law. Where, however, anything in this personal law affects the woman's position adversely, immediate attempts should be made to remedy this.

(NOTE : Considerable discussion took place on this resolution. Mr. Shuaib Qureshi expressed his disagreement with it. Mr. G. M. Sayed was of opinion that the Civil Code should be made compulsorily applicable to all, and that there should be no option about it. Some other members were in sympathy with this view, but they felt that, under the existing circumstances, it was preferable to make the application of the Code optional. The representatives of the Sub-Committee stated that their members, including Begum Hamid Ali and Begum Shah Nawaz, were in favour of an optional Civil Code. Mrs. Zarina Currimbhoy and Mrs. Ismail also expressed their agreement with this view).

20. Reformers in many communities have brought about changes in the Personal Law from within these communities. These efforts are to be welcomed and where-ever they are in line with the general policy of the State, they should be encouraged by the State.

21. An All-India Civil Marriage Act shall be enacted enabling any two persons above the age of majority, to whatever religion they may belong, to be married without any declaration in regard to religion.

22. Pending the completion of the Plan, it is clear that the existing law will continue to function in regard to marriage, side by side with the civil marriage provided for above. Immediate steps must, however, be taken for the following purposes:

(*i*) In regard to the age of marriage, the legal limits should be progressively raised to the Age of Majority;

(*ii*) Consent of the marrying parties shall be made essential.

(*iii*) Marriage shall be made monogamous, and the right to divorce introduced

(*iv*) All intended marriages shall be notified, and marriages shall be recorded by a public authority. The State should afford facilities for this, so that this intimation and record may be made easily through the village panchayat or other self-governing body.

(NOTE.—There was considerable discussion on clause (*iii*) above relating to monogamy. Mr. Shuaib Qureshi was in favour of encouraging monogamy in every way and of the State discouraging polygamy, but he was opposed to a legal bar against polygamy. He agreed that on a second marriage by the husband, the first wife should have a right of divorce.

Mr. G. M. Sayed was in favour of immediate and compulsory monogamy.

Mr. Joshi was of opinion that if the age limit of marriage was raised to majority and divorce was made easy and at the will of either party, this provision about monogamy was not necessary. Dr. Dubey and Mr. Shroff agreed with Mr. Joshi. The clause was, however, approved by the majority of the members).

23. Divorce shall be available at the option of either party, subject to such conditions as may be laid down by the law in that behalf, These conditions may relate to sufficient notice, period for the divorce to be effective, and maintenance and custody of children. These conditions should be equal as between man and woman.

(NOTE.—In this connection the question of *mehr** in Muslim Law must be considered, without prejudice to the principle laid down above.)

(NOTE.—Messrs. Shuaib Qureshi, Syed Mahmud and Nazir Ahmad add the following note to this resolution on divorce: This shall not affect the Muslim personal law, according to which the two parties to a marriage contract could, as the law stands even now, have, as part of the contract, equal right of divorce. As to the right of maintenance of children, that too is fully safeguarded under the Islamic Law).

24. Divorce when effective shall be evidenced by an appropriate certificate from some public authority.

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* The word *mehr* is, it seems, variously spelt.

25. Disabilities attached to the condition of widowhood should be ended.

26. The State should follow a policy to assure to woman the same rights as man to hold , acquire, inherit, and dispose of property of all kinds, and to shoulder corresponding obligations, without any differentiation at any stage or in any manner or grounds of sex alone, and changes in the existing laws, when necessary, should be progressively made. This is especially necessary in regard to the Hindu Law.

NOTE.—Messrs. Shuaib Qureshi, Syed Mahmud, Nazir Ahmad and G. M. Sayed wish to add that this should be without prejudice to Muslim personal law.

27. The right to insist upon restitution of conjugal rights in Hindu and Muslim Law should be abolished.

28. Co-education shall be the basis or ideal of the national system of education, which should be founded on common courses of study for boys and girls. During the transitional period, common high schools for the adolescent should be encouraged for both sexes. Provision may, however, be made for separate high schools for girls, where local sentiment demands them, and this is considered feasible.

The staff in all co-educational institutions should be mixed, and in other institutions such mixed staff should be encouraged.

(NOTE.—Prof. M. N. Saha and Mr. Shuaib Qureshi were against co-education between the ages of 12 and 18).

29. The State shall provide training centres for women social workers who due to economic circumstances and lack of high academic education, cannot avail themselves of the existing facilities.

30. Legalised abortion should be permitted only in recognised institutions under properly qualified persons ;

(*a*) when preganancy is a result of rape ;
(*b*) when pregnancy is considered dangerous to the health of the mother.

31. The administrative machinery of the State shall include a Ministry of Social Affairs to co-ordinate all problems connected with social welfare, and to arrange for investigation and research into problems of this nature.

Sub-Committee on Land Policy, Agricultural Labour and Insurance

1/4

Shri K. T. Shah, Chairman of the Sub-Committee on Land Policy &c., presented a further note on the 3rd September, in addition to the Interim Report submitted during the Fourth Sessions of the National Planning Committee. After full discussion, and certain amendments, this note was approved of. The amended note then read as follows :

In pursuance of the general policy already laid down by the National Planning Committee *vide* Handbook No. 3, page 33) in regard to the ownership and working of land, the following amplification is recommended :

Cultivation of land should be organised in complete collectives wherever feasible *e.g.* on culturable waste-lands, and other lands acquired by the State. Other forms of co-operative farming should be encouraged elsewhere. This co-operative farming should include cultivation of land and all other branches of agricultural work. In such co-operatives, private ownership of land will continue ; but working of such land shall be in common ; and the distribution of the produce will be regulated in accordance with the duly weighed contribution made by each member in respect of land, labour, and tools, implements, and cattle required for cultivation.

During the transition, the co-operative organisation of farming may also take the form of restricted co-operation for specific functions, *e.g.* credit, marketing purchase of seeds, etc.

It may also be on land acquired on lease by the co-operators from a private landowner, whose only interest thereafter would be confined to receiving the stipulated leasehold fee. The activities of such a co-operative organisation may be unrestricted in respect of all operations connected with agriculture. The only difference between this form and the preceding will be : that whereas in the preceding form the land will be brought into the common pool which belongs to the members of the co-operative themselves, in the other form the land would be leased from a private owner.

The State should also maintain special farms under its direct control and management for experimental, educational, or demonstration purposes.

The collective farm—as distinguished from the co-operative or the State farm mentioned above—may be operated in such a manner that, after paying from the produce all expenses of cultivation, including the wages of workers, the surplus, if any, after paying the State dues, will be available for the benefit of the collective colony and the common services or amenities required by it, so as to raise their standard of living, as well as to make provision by way of reserve against future contingencies.

It has been decided that no intermediaries between the State and the cultivators should be recognised ; and that all their rights and title should be acquired by the State paying such compensation as may be considered necessary and desirable. Where such lands are acquired, it would be feasible to have collective and co-operative organisations as indicated above.

While these steps are being taken in the direction of collectivisation, there will continue to be large parts of the country under the regime of peasant proprietors or individual cultivators. Individual enterprise will thus continue ; but it must be subordinated to the needs of the community. Wherever possible, the co-operative principle should be introduced even in this sector of the national economy to whatever extent feasible. This will also enable the State to judge from experience and comparison how far this organisation is beneficial in particular areas and can be harmonised with the Plan. It is difficult to make more specific recommendations in regard to this sector applicable to all India, as conditions vary considerably in the different parts of the country. Far-reaching changes have been made in recent years in regard to land revenue, agricultural debts, and organisation of farming and many proposals dealing with these and cognate matters have also been put forward, and are before the public. There is still room for considerable improvement in this regard ; but specific recommendations will necessarily relate to each province separately. It should be borne in mind, however, that whatever changes are proposed made, should be in keeping with the general policy and objectives in regard to land laid down above.

While the present land revenue system lasts, the basis of taxation must be changed so that the higher incomes from land should be taxed progressively on the model of the Income Tax. Wherever possible and advisable relief in land revenue burdens should be afforded to actual petty cultivators on whom that burden falls disproportionately heavily to-day.

be (NOTE.—Mr. G. M. Sayed was of opinion that compulsory collectives should the only ideal laid down.

Mr. Ambalal Sarabhai was in favour of the deletion of the last three lines of paragraph 2 and to state instead that "the distribution of the produce should be on an equitable basis."

Mr. Ambalal Sarabhai wished to add that he approved that the proposals contained in the Note should be given effect to as experiments. He fully accepted the last paragraph of the Note regarding the basis of taxation.)

Rural and Cottage Industries Sub-Committee

II:1

Dr. C. A. Mehta, Secretary of the Sub-Committee, presented a note on the Policy regarding Rural and Cottage Industries, on the 3rd September. Shri S.C. Das Gupta, Chairman of the Sub-Committee, was unable to be present. Discussion continued on the 4th.

There was a prolonged discussion on the relative virtues and failings of large scale and cottage industries. It was stated, however, that cottage industries were not intended to come in conflict with the industrialisation of the country, but to absorb the large numbers of the unemployed and partially employed in rural areas

The following resolutions were adopted :

1. A National Plan for India would necessarily aim at securing the welfare of the community as a whole ; but in view of the fact that the masses in the villages constitute nearly 90% of the population and form the backbone of the nation, their well-being should be the main concern of the State and primary objective of the national plan.

2. A vast mass of the people, especially those resident in the rural areas are unable to procure a sufficiency of food, clothing, housing, and other bare requirements of a healthy, efficient, and decent living ; and a large proportion of them are in a state of constant want, semi-starvation, enforced idleness and economic in security.

3. The decay of rural and cottage industries was brought about by the deliberate suppression of indigenous industries by the East India Co. for the benefit of British industry, and has been accelerated by the competition of the machine made products of foreign and Indian power-driven industries ; and by the failure of the State to recognise cottage industries as an integral part of the national economy. No occupations having been provided as a substitute, this has resulted, for the bulk of the rural population, in chronic under-employment, and a very low standard of life.

4. While other means of improving the economic conditions of the rural masses such as :

(*i*) Improvement of agriculture, extension of irrigation and other means of intensive cultivation, vegetable and fruit growing, etc.

(*ii*) Provision of public utilities and social services in rural areas, such as medical and educational facilities, transport services, water supply, etc., and,

(*iii*) State programmes of providing roads, irrigation facilities, and other forms of capital equipment,

will, if vigorously pursued, lead to a considerable amelioration in rural conditional those measures will, in the nature of things, take time to materialise. The revival and expansion of old and the introduction of new cottage and rural industries will be an important and indispensable means of rehabilitating the villages and providing adequate and suitable employment to the people in the villages and ensuring to them a satisfactory level of income and resources.

5. The importance of cottage and rural industries for improving the economic life of the large masses of the rural population arises from various advantages which cottage industries possess, such as :

(*i*) employment in the natural setting of the worker's own place of habitation, combined with numerous physical, moral, material and other benefits that go with such employment ;

(*ii*) finding means of livelihood for the largest number of persons ;

(*iii*) offering opportunities for profitable employment and development of inherent talent and aptitude in occupations which should be congenial to them.

(*iv*) the opportunities of following more than one vocation for means of livelihood, particularly subsidiary occupations for the cultivating classes ;

(*v*) the comparatively lower cost of living for a similar standard in rural areas than in urban areas :

(*vi*) the increased employment in rural areas leading to spreading over of purchasing power which is confined to urban area at present.

6. A permanent Cottage Industries board should be established. It will be a function of this board to arrange for the training of artisans and skilled workers, who would take charge of groups of unskilled workers in the villages and train up the latter to the requisite level of skill and discipline as speedily as possible.

The board should also undertake scientific and technical research in manufacturing processes which may be suitable for cottage and rural industries, with a view to widening the list of cottage and rural industries which can be undertaken by the people with advantage.

7. In determining the respective scope of cottage and rural industries on the one hand, and large-scale mechanised industries on the other, there shall be an examination by the Planning Authority of the relative economic and social value of the two methods of production, taking into consideration, among other aspects

(*i*) the possibilities for extending employment and absorbing the unemployed

(*ii*) the possibility of substantially raising the standard of life of the masses

(*iii*) equitable distribution of the existing national income and wealth so as to assure a proper standard of consumption ;

(*iv*) economic and social security ;

(*v*) reactions on the health, freedom, initiative, character and culture of the pe ple.

8. While all possible measures should be taken to strengthen the economic basis of the cottage and rural industries, by arranging for the requisite finance providing facilities for securing and storing raw materials, readjusting freights improving marketing, technique of production, implements, organisation, etc. such other protection should be given as the Planning Authority may consider necessary and desirable in order to neutralise such disadvantage as may remain.

Till a living wage can be assured to all the workers, the wage which is paid to rural workers shall not be less than four annas, on the basis of the cost of living index in August 1930.

(NOTE.—Mr. A. D. Shroff disagreed with this resolution.)

Mr. Joshi wanted to draw the Sub-Committee's attention to the conditions of work of rural and cottage industry workers. This matter should be considered in their fuller report.

9. Such cottage and rural industries as are specifically selected by the State for support should be controlled and regulated by the State.

(NOTE.—The sub-committee be asked to report on the nature and extent of the control necessary for this purpose.)

10. The cottage and rural industries, selected specifically for support by the State, should be organised so as to fit into the agrarian economy recommended in the resolutions of the N. P. C. passed in regard to Land Policy. (*Vide* pages 32-33 of Handbook No. 3.)

11. Large-scale mechanised industries which compete with those cottage and rural industries, which are specifically selected by the State for support, must be owned or controlled by the State, so that there may be proper co-ordination between the two.

12. In view of the fact that the general effect of the administration of the State in the past has been in favour of the urban areas and to the great disadvantage of the rural areas, the State should take particular care to redress this balance, and to avoid any measures in the future which injure, or are in conflict with, the interests of the rural population, so that a balanced structure may be built up under Planned economy.

13. It is desirable that the State should also encourage and foster such cottage and rural industries as can, with State assistance, in the form of provision of finance, improved processes and equipment, research, marketing and other facilities, be in a position to produce goods and services at a cost and return comparable to those of other competing methods of production. The words 'cost' and 'return' used in this context have to be interpreted in a broad sense, so as to include long time as well as short time costs and returns, and the indirect costs and return to society in addition to the costs and return reckoned in money. The Planning Authority will consider all these aspects and shall be the final judge.

14. All measures of a regulative nature, other than or in addition to the grant of a subsidy, which are required for the due achievement of the purpose mentioned above, should be such as not to place the mechanised industries of any Province or State at a disadvantage *vis-a-vis* their competitors in other Indian Provinces.

15. All measures pertaining to the regulation of the relation between cottage and mechanised industries should be planned and co-ordinated on an all-India basis, so as to avoid inter-Provincial conflict and rivalry. In doing so the Planning authority shall, however, take care that infant industries in economically undeveloped areas are not thereby put at a disadvantage in their development.

The resolution of the Sub-Committee in regard to the obligation of the State to provide alternative employment for those who lose it as a result of technical progress etc. was considered to cover too big a subject to be considered in this connection. In Planned Economy there should be no unemployment. During transition stages various measures will undoubtedly be necessary to provide alternative employment. The Committee appointed to draft a resolution on Rationalisation might consider this aspect of the problem.

The N. P. C. then reverted to a consideration of resolution No. 7 as recommended by the Rural and Cottage Industries Sub-Committee. There had previously been a great deal of discussion over this and it had been passed over. Many members pointed out that they would like to have full data in order to consider this recommendation. It was ultimately resolved that this resolution be sent back to the Sub-Committee, so that they might amplify it and give full figures and particulars. It should be considered in relation to the norms of progress laid down by the N. P. C. The resolution sent back for further report was as follows :

> " Considering the appaling poverty and helplessness of the people in the villages, on the one hand, and the vast amount of un-occupied time available for useful employment, on the other, industries concerned with the satisfaction of the primary needs of the rural population, *e.g.* manufacture of clothing, processing of food articles for the pursuit of which the people are equipped by long tradition, which engage large numbers at present, and which are capable of affording employment to much larger numbers, should be organised and developed by the State, as colttage or rural industries.
>
> " The national plan should provide for the adoption of all measures necessary for relieving these cottage and rural industries from the stress of competition, and for facilitating the expansion of such industries to the desired size, while providing a living wage to the workers engaged in these industries."

APPENDIX III

RESOURCES BUDGET

INTRODUCTION

On the 17th July, 1946, Council gave directions for the preparation of a Resources Budget, that is to say an estimate of the quantities of the main raw materials that would be required for implementing the various development plans and of the quantities likely to be available from indigenous sources of supply.

2. After consultation with officers who are concerned with the main constructional programmes it was decided to confine attention to the following materials all of which will be required in large quantities.

Coal.
Steel.
Timber.
Cement.
Bricks.

Cement and bricks were included not only on account of their intrinsic importance, but because their manufacture involves consumption of coal.

3. Though there are other materials, besides the above, which are of importance and may prove to be in short supply, the demand for them will be relatively inconsiderable, and for this and for other reasons, *e. g.*, because no reliable figures are available or because the supplies will in any case have to come mainly from foreign countries, it was decided not to include them in this Resources Budget.

4. An attempt has been made to frame, for each of the materials noted above estimates of probable production and of probable demand during each of the next 5 years. These estimates are for the most part based on very imperfect data. Figures, which are really little more than guesses, have often had to be accepted uncritically as the equivalent of reliable statistics and made the basis for deducing other figures. The sources of the various figures have, however, been briefly noted so as to afford some means of appraising their value.

It may be explained that in order to estimate future demand, Provincial Governments, Major Indian States, and Departments of the Central Government concerned with large constructional programmes were asked to furnish estimates of their probable requirements over each of the next five years, or, if this was too difficult, at any rate over the next 2-3 years. Several Provinces have not even yet replied, but it has been possible to guess roughly their requirements from the detailed estimates supplied by other Provinces.

5. A Resources Budget should perhaps include an estimate of human resources. This has not been attempted as it appears to be impracticable. It is well-known that lack of trained personnel will be one of the principal obstacles in the way of the execution of development plans, but data for assessing this lack in quantitative terms is not at present available. The only two bits of evidence which have come to notice, throwing light on the extent of the deficiency, are that the Bengal Government have had to cut their immediate programme of constructional work by nearly one half owing to insufficiency of staff, and the Sind Government estimate that they will have to cut their whole Public Works programme by one-third for the same reason.

6, Ahis dvdget has been drawn up on a simple plan. A section is devoted to estimates of production andconsumption for each of the five raw materials selected for consderation, and this is followed by a brief summary of the main facts which emerge and of the cocusions which appear to be

COAL

PRODUCTION

1. *Pre-war consumption of coal.*—The average annual production of coal during the period 1933-39 was about 24 million tons. Imports were negligible, amounting to only about 63,000 tons per annum. Average exports during the same period were about 810 thousand tons, increasing from 429 in 1933 to 1,688 in 1939. Thus pre-war consumption of coal within the country could be put at about 23 million tons.

2. *War production.*—The table below gives the production, imports, exports and distribution by consumers for the war period 1939 to 1945. The figures for the last two years are not complete and are subject to slight modification.

	1939	1940	1941	1942	1943	1944	1945
Production .	27,769	29,388	29,464	29,433	25,369	25,966	28,973
Imports .	49	5	8	9	Negligible		
	27,818	29,393	29,472	29,442	25,369	25,966	28,973
Exports .	1,688	2,112	1,735	422	(included in the above.)		
Net amount available for consumption	26,130	27,281	27,737	29,020			
Distribution—						(despatches only).	
Railways .	8,363	8,630	9,411	9,255	No figure available.	9,850	10,540
Admiralty .	70	221	409	477	...	750	550
Bunker .	927	762	817	866	...	1,410	1,340
Cotton Mills .	1,791	2,029	2,435	2,258	...	1,600	2,010
Jute Mills .	735	728	718	778	...	460	500
Iron & Steel .	6,629	8,890	4,427	3,887	...	2,930	3,130
Brick & Tiles .	367	372	415	443	...	234	358
Cement .	857	869	967	1,033	...	736	890
Paper Mills .	244	296	328	345	...	360	420
Port Trust	122	116	120	128	...	134	163
Inland Steamers	507	478	473	414	...	437	442
Tea Gardens .	188	181	187	156	...	88	153
Collieries and wastage .	1,416	1,498	1,502	2,634	...	...	...
Other industries and domestic	3,914	2,221	5,528	6,326	...	3,946	5,239
Total .	26,130	27,281	27,737	29,020	...	22,935	25,730

3. *Present production.*—It will be seen from the above table that production reached a peak in 1941 and 1942; fell off considerably in the next two years, but picked up again in 1945—an improvement which, it is understood, is being maintained during the current year. We may take it that present production is about 29 million tons, but due to transport difficulties only 23 millions in 1944 and rather under 26 millions in 1945 could be moved from the collieries.

4. *Future production.*—The Coalfields Committee consider that if certain measures suggested by them are carried out, production and transport could be stepped up by about 1½ million tons annually, so that by 1956 about 41 million tons could be made available for consumption. But they have expressed some doubt whether in the next year or two the transport situation will much improve, in which case the actual dispatches might not greatly exceed 26 million tons per annum.

CONSUMPTION

5. The Coal Commissioner has estimated that the immediate requirements of the various consumers will amount to rather over 32½ million tons per annum, if existing industrial capacity is to be fully utilised. The relevant figures are shown in abbreviated form below :—

	1947 (million tons)	
Railways	**10·80**	
Iron and Steel	**3·36**	**(This would more than cover requirements if all producer were working to full capacity with a total output of 1·4 million tons of finished steel.)**
Cotton textile	**2·40**	
Electric Coys.	**2·10**	
Cement	**1·20**	
Sindri Factory	...	
Bricks	**1·20**	
Paper	**0·48**	
Coke Ovens	**0·60**	
Bunker and Export	**2·40**	
Other industries	**3·22**	
Domestic	**2·40**	
Miscellaneous consumers	**2·07**	
	32·23	

The Coalfields Committee think that the above is rather an over-estimate and that present requirements, if industry were working to full capacity, are of the order of 30 million tons per annum. Certain individual items in the Coal Commissioner's estimates are certainly too high, and it seems safe to accept the lower figure of 30 million tons. If this is done, the gap between demand and pit-head production is only 1 million tons ; but the gap between demand and the amount which is actually being moved from the collieries is decidedly larger *viz.*, 4 to 4½ million tons. This gap has serious repercussions on the Iron and Steel Industry and to a lesser extent on the Cement Industry, neither of which can work to full capacity through lack of the right quantity and quality of coal. This in turn must necessarily have a retarding effect on the whole development programme.

6. *Transport difficulties.*—Obviously transport difficulties are really the crux of the matter. The Railway Board stated in June 1946 that their target is to achieve a daily loading from the Bengal and Bihar coal fields of 3,700 wagons which would give a yearly movement from this area of about 28 million tons : but they added a warning that they did not expect to achieve this target for another 2 years, *viz.*, till June, 1948.

If this target was achieved by June, 1948, the position would be reasonably satisfactory as with 28 million tons coming from Bihar and Bengal, the total amount of coal available should be at least 32 million tons. The Coalfields Committee very much doubt whether the Railways will in fact achieve their target, but this conclusion, on which neither Government nor the Railway Department have yet expressed any definite opinion, is perhaps a little unduly gloomy. During 1940-41 and 1941-42 the Railways moved 25½ million tons per annum from these coalfields. By the summer of 1948 when, presumably, they will have recovered from the present "operational fatigue" and will also be deriving benefit from the projects at present in progress for eliminating bottlenecks, increasing siding facilities , etc., in the Bengal-Bihar coal fields they ought to be able at least to improve on the figure of 25½ million tons per annum, even if they do not reach 28 millions.

In this connection it is worth noting that the target at the moment is 3,114 wagons per day. During the current month the Railways have been nearly hitting this target, combined daily loadings of the E. I. and B. N. R. totalling roughly 3,000 per day. This means that they have already achieved a rate which is equivalent to a movement of 23 million tons per annum from the Bengal-Bihar coalfields and adding thereto 4 million tons per annum (the 1945 figure) for movement from C. P.* and the Indian States we get a total of 27 million tons per annum. It seems possible that we may already be achieving something like this figure rather than the 1945 figure of 26 million tons.

7. *General conclusion.*—This would mean that we have already knocked off 1 million from the gap of 4 to 4½ million tons. A further saving of nearly 1 million tons can be effected by restricting exports to 825,000 tons as recommended by the Coalfields Committee. Even so there is likely to be an embarrassing shortage for the next 2-3 years.

STEEL

PRODUCTION

Pre-war production.—Average pre-war production of finished steel in India was about 700,000 tons per annum and imports were 200,000 to 300,000 tons. Thus the total steel available was about 1 million tons. No reliable figures are available regarding the distribution by consumers. Rough estimates made by the Iron and Steel Controller are as follows :—

	Tons
Railways	200,000
Port Trust, roads and rivers	25,000
Packing	60,000
Textile, tea and other industries	50,000
Structural fabricators	80,000
Roofing of Kacha buildings	100,000
Buildings (including Government)	343,000
Miscellaneous (including small industries)	140,000
	998,000

2. *War production.*—Production and imports during war years were as under :

(000 Tons)

	1939-40	1940-41	1942-43	1943-44	1944-45
Production	804	925	907	978	923
Imports	260	183	49	54	87
	1,064	1,108	956	1,032	1,010

During the war years, practically the whole of the available quantity of steel was used by the Defence Services, Railways and Civil Services. Private consumption was very negligible.

3. *Present productive capacity.*—The present productive capacity of the four primary producers is about 1,264,000 tons, *viz.* :—

	Tons.	
Tatas	850,000	
SCOB	350,000	
Mysore	40,000	(includes increased capacity of 10,000 tons ready for operation.)
and Ishapore	24,000	
	1,264,00	

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* NOTE.—Projects are also in progress for improving clearance from coalfields in the Punch Valley in C. P. So the 1945 figure of 4 million tons for C. P. & Indian States is a conservative one.

Actual present production.—Actual figures of production are however much less due mainly to lack of coal and transport difficulties. Labour troubles have also contributed to a fall in production. In 1945-46 the output was only about 900,000 tons and it is not expected greatly to exceed this figure in 1946-47.

4. *Future productive capacity and future production.*—Productive capacity in the near future, say 1947, is estimated at 1,400,000 tons *viz.*:—

	Tons	
Present capacity	1,264,000	per annum.
SCOB	100,000	(increase when the Duplex Plant works at full capacity; the delay is due to the lack of coking coal and to strikes.)
Ishapore	36,000	
	1,400,000	

It is possible that actual production will be stepped up to somewhere near this figure in 1948. It is most unlikely to reach it in 1947; indeed unless there is very substantial improvement both in the quality and quantity of coal made available to the steel industry and a cessation of labour disputes, production next year is again not likely to be more than about 900,000 tons.

Productive capacity at the end of three to four years is expected to be about 1,570,000 tons per year :—

	Tons	
Present capacity	1,264,000	per annum.
Tatas	150,000	per annum increase in about 3 years time.
SCOB	100,000	per annum increase as stated above.
Mysore	20,000	per annum increase in about 4 years' time.
Ishapore	36,000	per annum increase as stated above.
	1,570,000	

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The Iron-and Steel Panel have recommended the installation of a new plant with a capacity of 500,000 tons per annum rising ultimately to one million tons, and, if circumstances warrant it, another plant of the same capacity. But it will be 5—7 years before this plant is installed and in actual operation. So far as the next 5 years are concerned it can be disregarded. Moreover, even some of the extensions to existing plants noted above may not come about, unless arrangements can be made to divert coal with coking properties from the railways and other users to steel works. This matter has been fully dealt with in the report of the Coalfields Committee, and will be considered by Government in due course.

5. To sum up, during the next three years actual production may range from 900;000—1,400,000 tons, but is likely to be nearer the lower than the higher figure at any rate in 1947. By 1950 productive capacity may reach about 1,550,000 tons and from 1953 onwards it should be not less than 2,000,000 tons.

CONSUMPTION

6. *Present demand.*—The present demand for finished steel is certainly over 1 million tons per annum. As current production is only 900,000 tons, the Iron and Steel Controller has made the following allotment for the current year :—

	Tons	
Railways	300,000	(demand 500,000 tons).
***D. G., I. & S.**	200,000	(demand 260,000 tons).
Packing requirements	100,000	
Provinces (including unclassified users)	300,000	
Defence	*Nil*	(demand 90,000 tons).

7. For 1947, it has quite recently been decided to allocate an assumed indigenous production of 900,000 tons and imports of 150,000 tons as follows :—

	Tons
Railways	300,000
Industrial maintenance and packing	150,000
Steel processing industries	210,000
Government Development schemes	80,000
Industrial Development schemes	50,000
Exports	10,000
Provinces (small consumers)	250,000
Total	1,050,000

8. *Future demand.*—As regards the future demand over the next few years, it is difficult to frame reliable estimates. The Iron and Steel (Major) Panel have suggested that it will amount to two million tons per annum made up as follows :—

	Tons
Normal requirements (Pre-war)	1,000,000
Agricultural Department	455,000
Railway Board (over and above 200,000 tons normal requirements)	300,000
Hydel and other electric schemes	60,000
Roads	10,000
Provinces (increase in consumption by other unclassified users)	200,000
Total	2,025,000

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It is possible that this is somewhat of an over-estimate, at any rate, so far as the next two or three years are concerned. Apart from other possible errors, the figures supplied by the Agriculture Department have been misunderstood by the Panel—the correct estimate of the increased agricultural requirements is 120,000 tons and not 455,000 tons. Even this lower figure may be an over-estimate.

9. The primary purpose of the present enquiry is, however, not so much to estimate the total demand as to establish the magnitude of Government demands in

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* NOTE.—The industries which draw their requirements against the D. G., I. & S. quota of 200,000 tons number about 35. The more important of these industries are :—

	Tons
Structural fabricators	145,000
Bolts, nuts, rivets, etc., manufacturers	38,000
Other manufacturing industries like steel, furniture, sugar mill, machinery, textile machinery, bicycle manufacture, electric goods, etc.	77,000
Total	260,000

relation to probable supplies. The table below covers most of Government requirements and is compiled from or based on figures supplied by the various Governments or departments concerned :—

	1947-48	1948-49	1949-50	1950-51	1951-52
Railways	455,600	455,600		Not known.	
Posts & Telegraphs . .	22,000	22,000		Not known.	
Roads (average for 5 years)	15,200	15,200	15,200	15,200	15,200
C. P. W. D. . . .	20,000	16,000		Not known.	
E.-in-C. (Military) . .	16,000	17,600	19,600	21,700	21,700
Provincial irrigation and electricity programmes (including inter-provincial projects) . .	75,000	85,000	79,000	38,000	46,000
Provincial building programmes . . .	42,000	37,000	35,000	36,000	31,000
States building and irrigation programmes . .	16,000	18,000	11,000	10,000	12,000
Total .	661,800	666,400	..	..	..

To the above total would have to be added something for Ports, say 15,000 tons per annum and for Defence Department other than E.-in-C. It was suggested to the Iron and Steel Panel that 50,000 tons per annum might represent defence requirements, but the Panel considered these figures rather low and the demand for the current year (which the Iron and Steel Controller has refused) is 90,000 tons. 75,000 tons would seem to be sufficient allowance, making with 15,000 tons for Ports another 90,000 tons.

Thus the total Government demand during the next two years may be put at roughly 750,000 tons and it will probably increase rather than decrease during the three succeeding years. It will be observed that it amounts to a very large proportion of current production. Indeed, if the Government demand were met in full and production continued to run at only 900,000 tons per annum, there would only be about 150,000 tons left for private consumers. This is obviously totally inadequate. It is perhaps hardly necessary to speculate at length on the extent to which it falls short of requirements. Judged by the pre-war ratio of Government to private consumption, the demand of private consumers for steel can hardly be much less than the Government demand ; and even though Government consumption is much greater now than it was in 1939, there is every reason to suppose that private demand has increased at least *pari passu*. On this supposition, the total demand for steel must be now not less than 1,500,000 tons per annum, and may well be more. Further more, it is likely to increase over the next few years.

10. *General conclusion.*—If this estimate of demand is compared with the figures of probable production given in paragraph 5, it will be seen that in the most favourable circumstances, which are not likely to materialise *viz.*, if production was stepped up at once to 1,400,000 tons, the supply might approximate to the demand ; but the actual probability is that there will be an annual deficit ranging from ½ million tons upwards during the next three years.

11. The only possible way of meeting this gap is by imports, but here too the immediate prospects are not very bright. The actual imports from January to July 1946 were 26,500 tons and the total imports for the year are likely to reach only about 50,000 tons. In relation to what is likely to be needed this is a mere flea-bite. The possibility of obtaining steel in really substantial quantities from U. K., U. S. A. and other foreign sources in 1947, 1948 and 1949 do not yet seem to have been fully explored.

12. In view of the certainty of a shortage of steel during the next few years it is essential to make arrangements whereby Government Development schemes of high priority *e.g.*, Irrigation and Electricity schemes, receive their requirements in full and without delay.

TIMBER

Statistics regarding the production and consumption of timber are very incomplete, and on the basis of the data available it is only possible to reach certain very broad conclusions :—

PRODUCTION

1. *Pre-war and war production.*—The table below gives the figures relating to import of timber and to production of timber from forests under the control of the Forest Department (including the Andamans) both before the war and during the war, so far as they are available.

	Production	Imports
	(In tons)	
Average 1935-36 to 1938-39	**1,232,000**	**130,000**
1939-40	**1,334,000**	**167,000**
1940-41	**1,640,000**	**168,000**
1941-42	**1,330,000**	**151,000**
1942-43	**1,750,000**	**4,655**
1943-44	**Complete figures not yet available.**	**579**
1944-45	**Do.**	***Nil.***

The above figures do not include production of timber from private forests and States which is believed to have amounted to about 50* per cent. of the production from forests under the control of the Forest Department.

2. *Future Production.*—It is estimated that, despite the heavy fellings during the war, production of Government timber in the post-war period should equal or even a little exceed production in the pre-war period. Increased fellings in the Eastern States, Assam and possibly the Andamans are expected to make up for decreased fellings elsewhere. We may, therefore, put annual production from Government forests during the next few years at 1,250,000 tons.

On the other hand, production from private forests and States is likely to be lower than before the war owing to heavy war-time fellings and to schemes for bringing private forests under Government control which may mean a decrease in fellings in the first few years. The Inspector-General of Forests considers that it would not be safe to expect production of timber from States and private forests to exceed 33.1/3 per cent of production from Government forests.

We thus get the following estimates of annual production :—

	Tons
From Government forests	**1,250,000**
From Private forests and States	**416,000**
Total	**1,666,000**

Some forest officers consider this a conservative estimate. On the other hand the Timber Directorate of the Industries and Supplies Department are of the opinion that 1,400,000 tons would be a more correct estimate of annual production in the next two to three years.

*** Post-war Forest Policy for India by Sir Herbert Howard.**

3. As regards imports, no appreciable quantities can be expected in the near future. The vast bulk of the pre-war imports represented teak from Burma. Imports from this source for 1947 are estimated at only 20,000 tons. They may increase thereafter, but are not likely rapidly to reach their pre-war level of nearly 150,000 tons.

Small quantities of deal and pine used to be imported from the U. S. A. and Yugoslavia before the war. There are no prospects of obtaining any appreciable quantities from these countries in the near future.

CONSUMPTION

4. The Timber Directorate have stated that it is impossible to estimate future annual consumption, " but in view of the pent up demand, it may be assumed that the entire production of the country during the next two or three years would not be sufficient for the country's needs ; there will, in fact, be a scarcity of good timber for constructional purposes." This is also the view of several experienced Forest Officers. It rests, of course, on certain broad and obvious facts. Before the war, the country was consuming about 1,400,000 tons of timber including imports. During the next two to three years, the total supplies available may only just reach this figure. But there is an enormous pent up private demand for timber ; a number of industries which use timber *e.g.*, plywood industries, are developing, and Government have large constructional programmes in hand which will require timber. It is reasonably certain therefore that the demand will greatly exceed the pre-war demand.

5. *Government demand.*—It would seem, however, from such figures as are available that the Government demand for timber will be only a small proportion of the total. Rough estimates of the requirements of Central, Provincial and State Governments are given in the table below :—

	1947-48	1948-49	1949-50	1950-51	(tons) 1951-52
Railways	3,05,000	3,05,000	..	..	..
C. P. W. D. . . .	12,000	10,000	..	..	..
E.-in-C (Military) . .	45,000	33,000	18,000	15,000	15,000
Provincial Building programmes . . .	61,000	52,000	51,000	53,000	52,000
States Building programmes	22,000	22,000	18,442	16,827	16,851
	4,45,000	4,22,000	..	..	..

There should be no difficulty whatever in meeting this demand, except in the case of the Railways. Their demand is mainly for sleepers, and for sleepers they normally require a very high quality of timber, of which supplies will probably be insufficient. They have, however, in the past accepted some parts of their demand in lower quality timbers and in 1947-48 they propose to take about 23% of their demand for wooden sleepers in lower qualities. The possibilities of finding substitutes for timber sleepers or of utilising lower quality timber on a larger scale without detriment to efficiency requires to be, and, doubtless, will be, further explored.

6. *Private demand.*—As regards private demand, it is useless to try to frame estimates. But it is important to grasp that, in the case of timber, high prices will almost certainly increase production. Distant forests in which, owing to heavy transport charges, fellings would otherwise be uneconomic, will be opened up and exploited. Production is in this case ' elastic '.

7. *General conclusion.*—One may conclude, therefore, that with the exception of the Railway demands, there should be no serious difficulty in meeting Government requirements for timber, and that private consumption, if left to itself, will take care of itself by the operation of natural economic laws.

CEMENT

PRODUCTION

1. *Raw materials.*—To make 100 tons of Cement, approximately 160 tons of limestone and clay, 4 tons of Gypsum and 38 tons of coal are needed. With the exception of coal these materials are available in plenty. To some extent Hydro-electric power can be substituted for coal as is already done in Cement works in South India, but as it is impossible to expect any appreciable increase in Hydro-electric power within the next three years, any increase in Cement production during this period will involve increased consumption of coal.

2. *Past production.*—The figures of past production are given in the following table :—

Year	Production (In tons)	Import (In tons)
1934-35	781,000	49,180
1935-36	890,683	42,940
1936-37	997,000	38,474
1937-38	1,169,894	31,916
1938-39	1,512,000	21,214
1939-40	1,730,000	11,267
1940-41	1,727,000	..
1941-42	2,247,000	..
1942-43	2,183,000	..
1943-44	2,112,000	..
1944-45	2,048,543	..
1945-46	2,075,340	..

It will be observed that between 1934 and 1939 the production of Cement in India nearly doubled and it has increased considerably since then. The slight fall in production in the last two years is said to be due to wear and tear of plants which had been overworked during the war and to shortage of coal.

3. *Future production.*—Anticipating a very greatly increased demand for Cement in the post-war period the Government of India have approved Plans for the construction of new cement works and the extension of old ones designed to raise productive capacity to 6,000,000 tons in 1952 by which date internal demand is expected to exceed 5,000,000 tons. The following estimates of productive capacity in the post-war period have been made by the Consulting Engineer (Cement), having regard to the rate at which the necessary plants for increasing capacity are likely to become available. It is considered that if plants are kept in good condition and the right type of coal is supplied in adequate quantities it might be possible to effect a production of 90 per cent. of the installed capacity, but most likely the figure will be somewhat lower :—

Year	Production capacity (tons)		Annual production (tons)	Coal required (tons)
1947-48	3,309,000	Less 10%	2,978,000	1,356,000
1948-49	3,980,000	„	3,582,000	1,581,000
1949-50	4,570,000	„	4,113,000	1,787,000
1950-51	5,030,000	„	4,527,000	1,962,000
1951-52	5,667,000	„	5,100,000	2,187,000

Dalmias and A.C.C. were asked to confirm these estimates but have not replied. For the present they may be accepted as substantially correct.

CONSUMPTION

4. *Future demand.*—As regards the demand for Cement during the next five years, the following estimates have been obtained from Provincial Governments, the major States and the Central Government Departments of their total requirement of Cement, both for ordinary purposes and for carrying out their large post-war building and other constructional programmes :—

(In tons)

Central Government	1947-48	1948-49	1949-50	1950-51	1951-52
C. P. W. D.	90,000	60,000	Not known		
E.-in-C.	1,30,000	1,42,000	1,57,000	1,73,000	1,73,000
Railways	2,50,000	2,50,000	2,20,000	2,20,000	2,20,000
Roads (average)	3,52,000	3,52,000	3,52,000	3,52,000	3,52,000
Agriculture (Wells)	1,89,000	1,89,000	1,89,000	1,89,000	1,89,000
Posts and Telegraphs	3,000	3,000	3,000	3,000	3,000
Provinces					
Buildings	2,55,000	2,39,000	2,08,000	2,35,000	2,32,000
Irrigation and Hydel (including inter-provincial projects)	3,24,000	5,58,000	5,57,000	5,02,000	6,08,000
Indian States					
(Buildings, Hydel and Irrigation projects)	1,26,000	1,59,000	1,43,000	1,98,000	1,66,000
Total	17,19,000	19,52,000	18,29,000	18,72,000	19,43,000
Private Demand (See below)	18,00,000	19,00,000	20,00,000	21,00,000	22,00,000
GRAND TOTAL	35,19,000	38,52,000	38,29,000	39,72,000	41,43,000

The figures given above for private demand represent estimates obtained from the Cement Marketing Company. They consider that private demand will amount to 1·8 million tons in 1947-48 and rise annually by 100,000 tons during the next 4 years.

Calculations based on Dr. Thomas's estimate of the normal pre-war investment in building construction lead to not dissimilar conclusions, and the Cement Marketing Company's estimate though probably somewhat conservative may be accepted as not unreasonable.

Thus the total demand for Cement is likely to amount to approximately 3½ million tons in 1947-48 and to rise to over 4 million tons in 1951-52.

5 In the table below figures of estimated production and of consumption for the next 5 years are compared :—

	Estimated production	Estimated consumption	Difference + or — (In tons)
1947-48	2,978,000	3,519,000	—541,000
1948-49	3,582,000	3,852,000	—270,000
1949-50	4,113,000	3,829,000	+284,000
1950-51	4,527,000	3,972,000	+555,000
1951-52	5,100,000	4,143,000	+957,000

6. *General conclusion.*—It will be seen from the above that from 1949-50 onwards supply should more than equal demand but that until then, even if the scheme for expansion of Cement production goes through smoothly and there are no difficulties regarding the supply of coal, there is likely to be a deficit. This should not, however, present any serious difficulties. It is doubtful whether the consumption of cement on road construction, which has been estimated at about 350,000 tons annually, will in fact reach this figure in the near future, and in any case it can easily be curtailed during the next two years, if Provinces are asked to take up 'black top' roads, so far as possible, and to defer cement concrete ones. There will also be no harm if private demand for cement for building purposes is stinted somewhat in the next two years. Moreover Government building programmes will certainly be slowed down through lack of architects, engineers and supervisory staff.

BRICKS

Clay being abundantly available locally, the chief factor in the production of bricks is fuel for burning the clay. This may either be wood fuel or coal, but the latter is more economical and more widely used. The most inferior quality of coal will suffice. Statistics of pre-war consumption of coal in brick burning are not available. During the war, the supply of coal for this purpose was greatly restricted, the despatches from the rationed fields during 1945 amounting to barely 275,000 tons; but during that year about 350,000 tons of coal from unrationed fields were also utilised for brick burning, thus bringing the total to 625,000 tons.

Future demand.—The Industries and Supplies Department estimate that in the future, owing to greatly increased building activity, the demand for coal for brick burning will amount to about 1·5 million tons per annum. This would constitute an increase of nearly a million tons per annum over the 1945 consumption. In his estimates of coal requirements for the year 1947 the Coal Commissioner has allowed 1·2 million tons for brick burning from the main coalfields; but at least 300,000—400,000 tons of inferior coal, suitable for brick burning, can be obtained from the minor coalfields in Assam, Punjab, Sind and Baluchistan. The Coal Commissioner's figures would therefore mean a total allowance of at least 1·5 million tons for this purpose. On the basis of 20 tons of coal to 1 lakh of bricks, this would suffice to produce 75,000 lakhs of bricks.

General conclusion.—It seems probable that by 1948-49 the demand for bricks will at least reach if it does not exceed this figure. Rough estimates suggest that Government requirements for *buildings alone will come to 15,000 lakhs per annum, and private requirements will scarcely be less than 4-5 times as much. It is therefore by no means unlikely that the supply of coal for brick burning will prove inadequate; but in this event greater recourse can be had to wood fuel. Both Provincial and State Governments anticipate no serious difficulty in obtaining all the bricks which they require. This conclusion may be accepted.

GENERAL CONCLUSIONS

The following appear to be the main conclusions to be drawn from the foregoing analysis :—

1. In the immediate future the successful execution of our large constructional programmes hinges on the Railways. They have a two-fold importance. In the first place increased availability of coal, which is still the main source of power, depends primarily on the railway projects for accelerating movement from the collieries. In the second place the Railways' own programmes of maintenance and development dwarf all other constructional plans in the call which they make on the physical resources of the country. Their requirements of steel amount to no less than 50 per cent. of the current production; their demands for timber and coal are enormous; and for cement and other commodities very considerable. It is the magnitude of the Railway demands which largely accounts for the anticipated shortages.

It is clear that—

(a) on the one hand nothing must be allowed to obstruct railway projects for accelerating movement of coal. Anything required for these is a first priority. Government may care to satisfy themselves that these projects are adequate and are being executed with the necessary vigour.

(b) on the other hand, some attempt must be made to slow down railway demands for other purposes. This may not be an easy matter as a large proportion of the demand is on account of maintenance which is already in arrears.

2. In view of probable shortages controlled allocations of coal, steel, and possibly cement will be required for the next few years. To do this piecemeal is unsatisfactory. A Priority Board appears to be required to make allocations at any rate of

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*Estimates of requirements for roads are not available.

coal and steel in accordance with an integrated plan. Allocations of all basic commodities required for constructional work must be linked up with one another and be made in the light of the whole developing economic life of the country.

3. The possibility of imports of steel from U. K., U. S. A. and Canada during the next 2-3 years should be fully explored. U. S. A. steel production fell heavily this year owing to strikes, but potentially it runs at something like 85 million tons per annum. American rails are not well-adapted to Indian railway practice, but it might be possible to have rail sections specially rolled for India in U. S. A., if sufficiently substantial orders were placed.

4. Though embarrassing shortages especially of Steel may be expected during the next 2-3 years the constructional programmes at present envisaged do not appear to be seriously beyond the material as distinct from the human resources of the country, if the five year period is taken as a whole.

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SCHEMATIC PRESENTATION OF MACHINERY OF PLANNING

(Prepared by K. T. SHAH *vide* his note at p. 64)

PART I

For the Union Functions exclusively

For the Functions of the Units

For Units Functions agreed to be delegated to the Union

Consideration of questions of policy *re* : each item or aspect of the Plan

(N. B.—The main or basic policy *re* the Plan itself will be embodied in the legislation setting up this administration as a whole. Questions of policy considered by this branch would be only those in relation to Particular items.)

Fixing definite objectives or targets for each item in the Plan to be attained every year

(To be done in consultation with the Trusts Syndicate, Statutory Corporations, Local Bodies, Agricultural Co-operatives etc. who are actually carrying out given items or aspects of the Plan. This would make a national Budget of the entire people and not only of Government including all kinds of resources and obligations.)

Examining resources and developing same to prescribed objectives

[This would mean preparation of the annual Budget for the whole country and all its peoples. It will be in terms of material and cultural resources (Credit Side), and the Human needs of body and mind in a civilised and progressive society. It will be initially prepared in each unit or even each region of the Unit by the local counterpart of this machinery integrated into a consolidated National Budget under the Plan.]

Ways and means in material equipment and personnel

(A National Resources and Requirements Board and a National Labour Board.)

N.B.—These duties to be discharged in regard to the Units functions as well as in regard to functions agreed to be delegated to the Union by this Central Machinery, which, if so desired, might be reproduced in the Units, though such a duplicate will needlessly add to the cost).

PART V

Trade

Interstate Commerce Commission Including Freights and Rates Tribunal Standardisation of weights and measures.

PART VI

Pensions

- Mobilisation and Organisation of [illegible] and woman power through the land (To be [illegible] by a specific Board [illegible] each Unit in consultation with Local Governing Bodies).
- Labour Unions for all Industries, Trades and Professions, Services and Utilities. Unionisation Compulsory part of the Plan.
  Collective bargaining essential
- Labour Exchanges to secure employment in accordance with aptitude, ability and Training or experience to each worker.
- Social Security Council to administer Social Insurance, Sickness and Maternity Benifits, Workmen's compensation or accidents insurance; Old age Pensions, Unemployments Pensions, specific Invalidity or Permanent Disability Pension.
  A local function in each Unit, to be worked through Labour Unions, or Village Co-operatives in collaboration with the Unit, or Union Government's Finance Departments.

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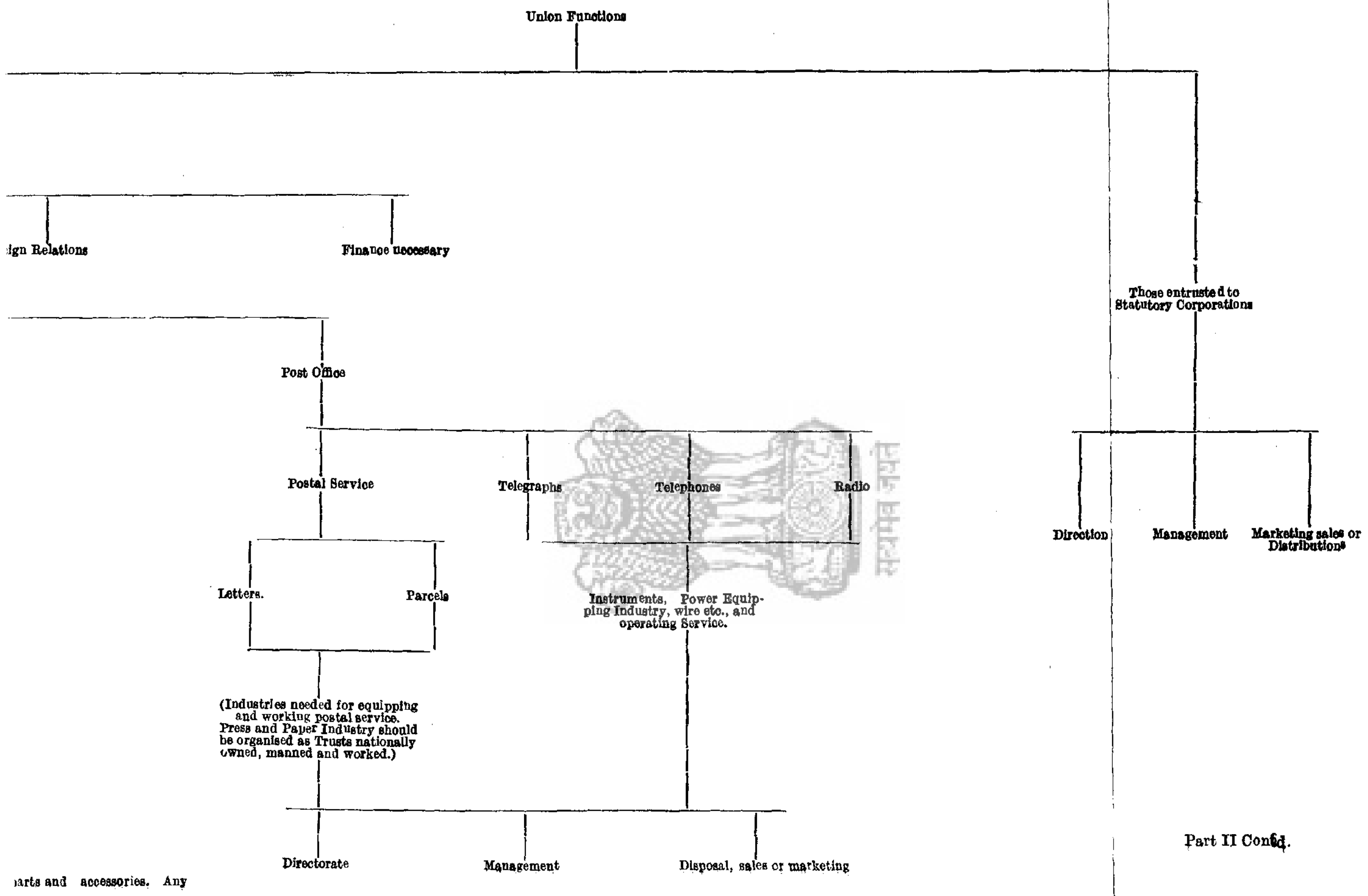
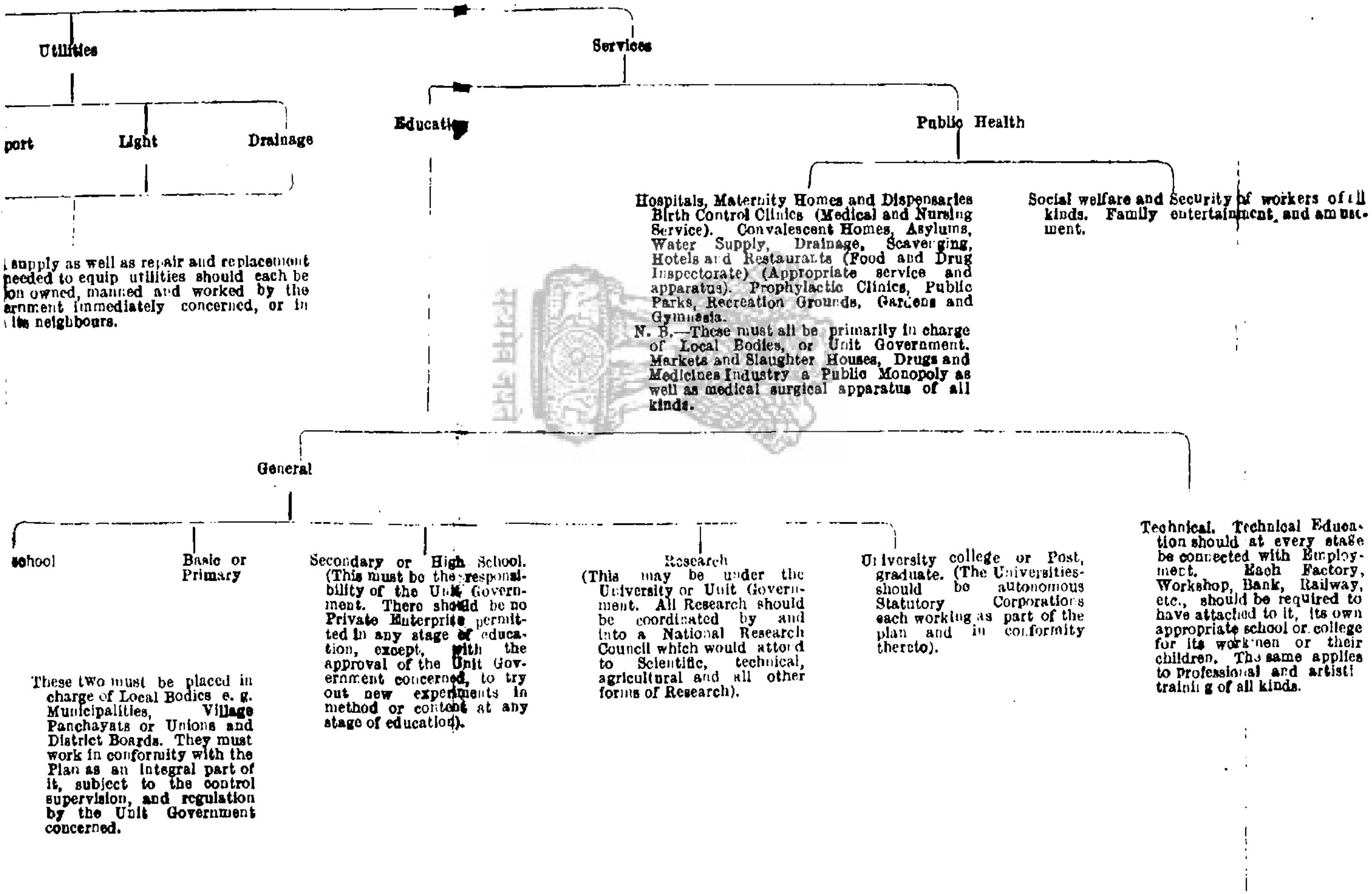

Union Functions
ign Relations
Finance necessary
Post Office
Postal Service
Telegraphs
Telephones
Radio
Letters.
Parcels
Instruments, Power Equipping Industry, wire etc., and operating Service.
(Industries needed for equipping and working postal service. Press and Paper Industry should be organised as Trusts nationally owned, manned and worked.)
Directorate
Management
Disposal, sales or marketing
arts and accessories. Any
Those entrusted to Statutory Corporations
Direction
Management
Marketing sales or Distributions

Part II Contd.



Utilities

port

Light

Drainage

supply as well as repair and replacement needed to equip utilities should each be on owned, manned and worked by the ernment immediately concerned, or in its neighbours.

Services

Education

Public Health

Hospitals, Maternity Homes and Dispensaries Birth Control Clinics (Medical and Nursing Service). Convalescent Homes, Asylums, Water Supply, Drainage, Scavenging, Hotels and Restaurants (Food and Drug Inspectorate) (Appropriate service and apparatus). Prophylactic Clinics, Public Parks, Recreation Grounds, Gardens and Gymnasia.

N. B.—These must all be primarily in charge of Local Bodies, or Unit Government. Markets and Slaughter Houses, Drugs and Medicines Industry a Public Monopoly as well as medical surgical apparatus of all kinds.

Social welfare and Security of workers of all kinds. Family entertainment and amusement.

General

school

Basic or Primary

These two must be placed in charge of Local Bodies e. g. Municipalities, Village Panchayats or Unions and District Boards. They must work in conformity with the Plan as an integral part of it, subject to the control supervision, and regulation by the Unit Government concerned.

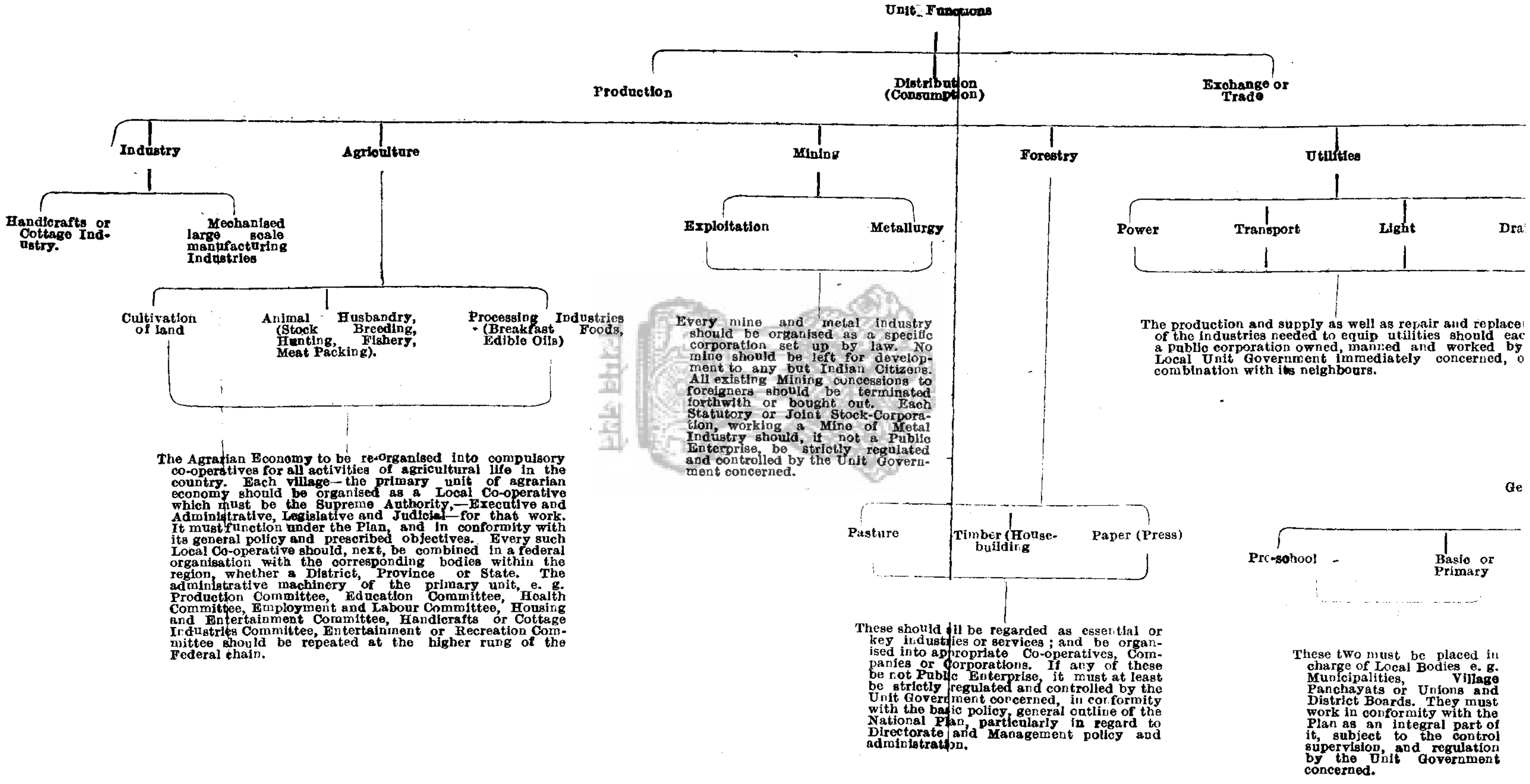
Secondary or High School. (This must be the responsibility of the Unit Government. There should be no Private Enterprise permitted in any stage of education, except, with the approval of the Unit Government concerned, to try out new experiments in method or content at any stage of education).

Research (This may be under the University or Unit Government. All Research should be coordinated by and into a National Research Council which would afford to Scientific, technical, agricultural and all other forms of Research).

University college or Post, graduate. (The Universities should be autonomous Statutory Corporations each working as part of the plan and in conformity thereto).

Technical. Technical Education should at every stage be connected with Employment. Each Factory, Workshop, Bank, Railway, etc., should be required to have attached to it, its own appropriate school or college for its workmen or their children. The same applies to Professional and artistic training of all kinds.

PART II—*concld,*


Unit Functions
Production
Distribution (Consumption)
Exchange or Trade
Industry
Agriculture
Mining
Forestry
Utilities
Handicrafts or Cottage Industry.
Mechanised large scale manufacturing Industries
Cultivation of land
Animal Husbandry, (Stock Breeding, Hunting, Fishery, Meat Packing).
Processing Industries (Breakfast Foods, Edible Oils)
Exploitation
Metallurgy
Pasture
Timber (House-building
Paper (Press)
Power
Transport
Light
Dra
Ge
Pre-school
Basic or Primary

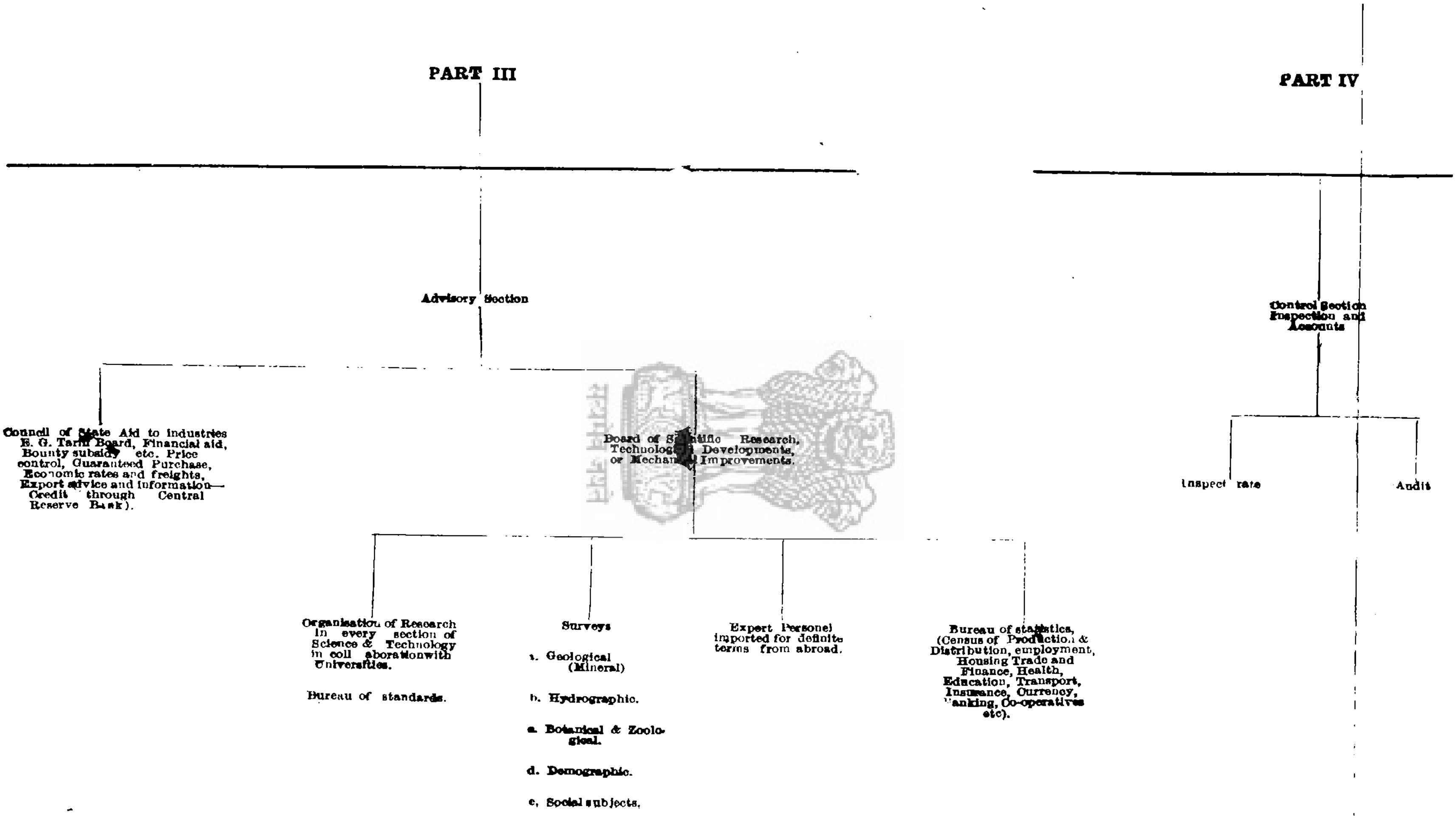
The Agrarian Economy to be re-organised into compulsory co-operatives for all activities of agricultural life in the country. Each village—the primary unit of agrarian economy should be organised as a Local Co-operative which must be the Supreme Authority,—Executive and Administrative, Legislative and Judicial—for that work. It must function under the Plan, and in conformity with its general policy and prescribed objectives. Every such Local Co-operative should, next, be combined in a federal organisation with the corresponding bodies within the region, whether a District, Province or State. The administrative machinery of the primary unit, e. g. Production Committee, Education Committee, Health Committee, Employment and Labour Committee, Housing and Entertainment Committee, Handicrafts or Cottage Industries Committee, Entertainment or Recreation Committee should be repeated at the higher rung of the Federal chain.

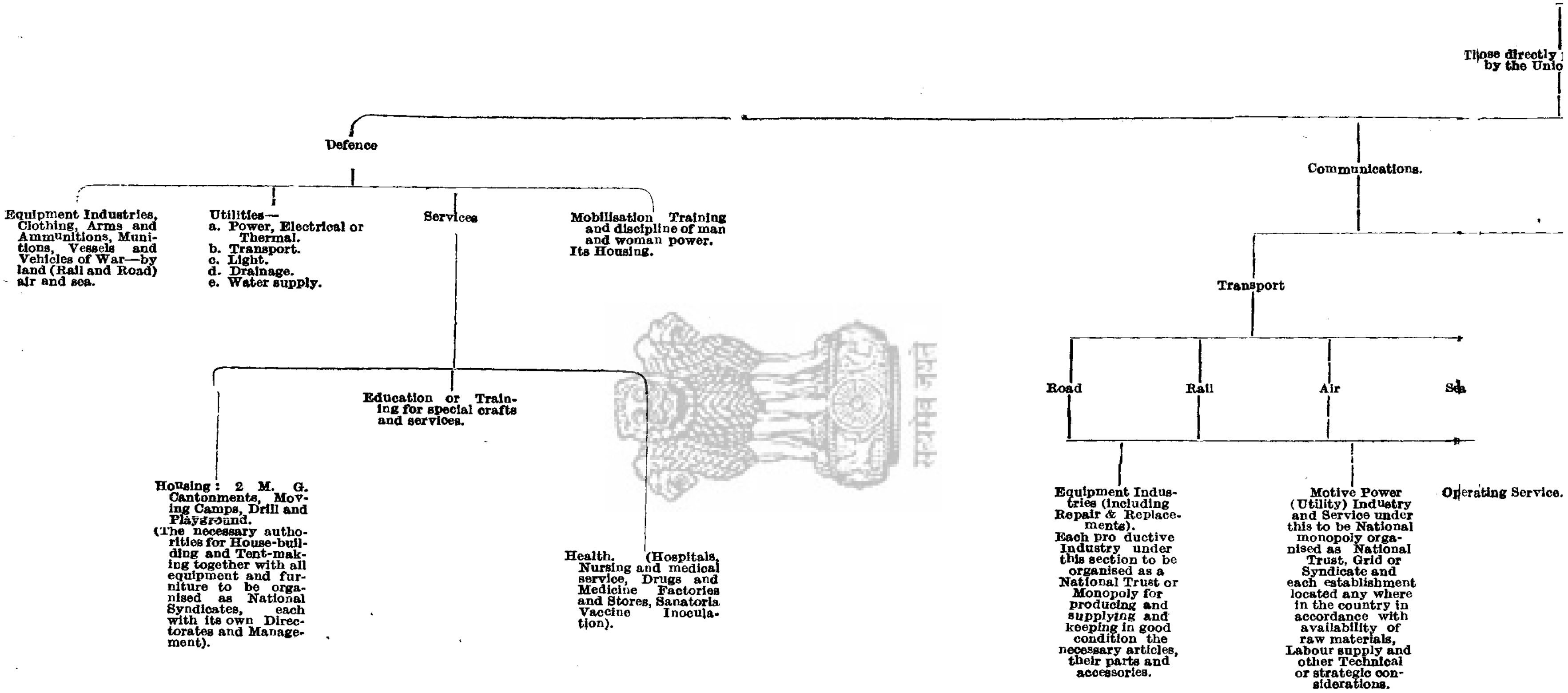
Every mine and metal industry should be organised as a specific corporation set up by law. No mine should be left for development to any but Indian Citizens. All existing Mining concessions to foreigners should be terminated forthwith or bought out. Each Statutory or Joint Stock-Corporation, working a Mine of Metal Industry should, if not a Public Enterprise, be strictly regulated and controlled by the Unit Government concerned.

These should all be regarded as essential or key industries or services; and be organised into appropriate Co-operatives, Companies or Corporations. If any of these be not Public Enterprise, it must at least be strictly regulated and controlled by the Unit Government concerned, in conformity with the basic policy, general outline of the National Plan, particularly in regard to Directorate and Management policy and administration.

The production and supply as well as repair and replace of the industries needed to equip utilities should eac a public corporation owned, manned and worked by Local Unit Government immediately concerned, o combination with its neighbours.

These two must be placed in charge of Local Bodies e. g. Municipalities, Village Panchayats or Unions and District Boards. They must work in conformity with the Plan as an integral part of it, subject to the control supervision, and regulation by the Unit Government concerned.


PART III
Advisory Section
Council of State Aid to industries E. G. Tariff Board, Financial aid, Bounty subsidy etc. Price control, Guaranteed Purchase, Economic rates and freights, Export advice and information— Credit through Central Reserve Bank).
Board of Scientific Research, Technological Developments, or Mechanical Improvements.
Organisation of Research in every section of Science & Technology in collaborationwith Universities.
Bureau of standards.
Surveys
a. Geological (Mineral)
b. Hydrographic.
c. Botanical & Zoological.
d. Demographic.
e, Social subjects,
Expert Personel imported for definite terms from abroad.
Bureau of statistics, (Census of Production & Distribution, employment, Housing Trade and Finance, Health, Education, Transport, Insurance, Currency, Banking, Co-operatives etc).
PART IV
Control Section Inspection and Accounts
Inspect rate
Audit


Those directly
by the Unio
Defence
Equipment Industries, Clothing, Arms and Ammunitions, Munitions, Vessels and Vehicles of War—by land (Rail and Road) air and sea.
Utilities—
a. Power, Electrical or Thermal.
b. Transport.
c. Light.
d. Drainage.
e. Water supply.
Services
Mobilisation Training and discipline of man and woman power. Its Housing.
Housing : 2 M. G. Cantonments, Moving Camps, Drill and Playground. (The necessary authorities for House-building and Tent-making together with all equipment and furniture to be organised as National Syndicates, each with its own Directorates and Management).
Education or Training for special crafts and services.
Health. (Hospitals, Nursing and medical service, Drugs and Medicine Factories and Stores, Sanatoria Vaccine Inoculation).
Communications.
Transport
Road
Rail
Air
Sea
Equipment Industries (including Repair & Replacements). Each pro ductive Industry under this section to be organised as a National Trust or Monopoly for producing and supplying and keeping in good condition the necessary articles, their parts and accessories.
Motive Power (Utility) Industry and Service under this to be National monopoly organised as National Trust, Grid or Syndicate and each establishment located any where in the country in accordance with availability of raw materials, Labour supply and other Technical or strategic considerations.
Operating Service.

Each industry in this section to be an exclusive Union Government Monopoly, organised as Trust owned, manned and controlled by Government and required to produce and supply and keep in repair and good condition the commo
of these industries or establishments may be located in any part of the country in accordance with the availability of raw material, expert labour and strategic conditions.

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